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TREATMENT OF THE ADOLESCENT PATIENT IN A STATE HOSPITAL*

BY ROBERT EDWALDS, M.D., AND KONSTANTIN DIMITRI, M.D.

Regardless of the nature of his illness, the adolescent patient presents unique problems for in-patient psychiatric treatment. It is the purpose of this paper to discuss primarily the theoretical framework for hospital treatment of the adolescent.

Galesburg (Ill.) State Research Hospital's methods of treatment are based on experience with 11 boys and 13 girls between the ages of 13 and 17 over a one-year period. At best, diagnostic categories for the adolescent patient are unsatisfactory, since patterns of illness are rarely stable in this age group. In the adolescents who seemed able to benefit from psychiatric treatment, schizophrenic reactions, character disorders and emotional instability patterns were noted—all associated with a variety of neurotic symptoms and behavioral disturbances.

The adolescents with sociopathic personality disorders had to be discharged after one or two months in the hospital, since this type of adolescent exhibited little or no capacity for internalized anxiety, or for close relationships with others; and destructive acting out was carefully planned, in contrast to the impulsive behavior of the other adolescents. Unless such adolescents are removed from the group, it may be virtually impossible to provide treatment for the patients who can be helped.

Perhaps the major concern of the adolescent centers around the problem of ego identity and the integrity of the self.[1-4] The adolescent ego has the task of handling an upsurge of energy from the id. Partly as a result of pressure from id impulses, self-boundaries may be weak and unstable.[1, 3, 5-9] The adolescent tends to be preoccupied with himself. Endocrine and somatic changes tend to disturb the body image. Should this biological assault occur in adolescents who have been unable to develop an adequate masculine or feminine self-concept, severe disturbances in self-identity may occur.[7] Poorly resolved Oedipal conflicts are reactivated, and defensive acting out may be seen as an effort to handle sexual and aggressive impulses.[10]

Along with his preoccupation in the area of ego identity, the adolescent is also beginning to develop a more mature super-ego

*From Galesburg State Research Hospital, Galesburg, Ill. Read at the 115th Annual Meeting of the American Psychiatric Association, Philadelphia, April 26, 1959.

and ego ideal. This is reflected in his concern with values and ethics, and partially represents an effort to control strong sexual and aggressive impulses.[7, 11, 12] The adolescent must begin to separate himself from his parents and become an independently functioning individual. For the adolescent, independence is initially a rather immature concept which involves unrestrained behavior without any accompanying feeling of responsibility for the consequences of that behavior.[6] The adolescent may be considered relatively independent when he is able to assume responsibility for his own actions. Finally, it is necessary for the adolescent to convert some of the increased energy available from the id into achievements for the ego in school and work.[6, 12]

The treatment program for the disturbed adolescent, staffing requirements and physical facilities should be planned on the basis of an awareness of the dynamic developmental problems of adolescence. With facilities lacking at Galesburg for a separate adolescent unit, it was necessary to house the research hospital's adolescents in 25-bed admission wards with adult patients. These wards are the only ones in the hospital which provide both privacy and security. Unless a small, separate, secure, well-staffed unit can be provided, the writers feel that it is preferable to keep the adolescent patient on a carefully supervised ward with selected adult patients. Certain adults must be removed from a ward with adolescents: (1) very regressed patients, (2) those who exhibit homosexual behavior, (3) geriatric patients, (4) adults who find adolescents especially irritating. Miller[2] contends that there are certain advantages in having adolescents on a ward with adults: "1) adolescents spend a large part of their time with adults with whom they have an important and significant relationship; 2) the stability of an adult ward should provide a favorable environment for the adolescent."[2] The writers have noticed that a ward housing several adolescents soon tends to lose its stability. However, if the treatment program is otherwise adequate, the adolescents can get along surprisingly well with most of the adults. Even excellent physical facilities would be of little value unless a treatment program tailored to the therapeutic needs of the individual could be provided. A separate activity program should be designed to meet the needs of the adolescents as a group. Academic classes, gym and social activities are part of the program set up at Galesburg exclusively for the adolescents.

Upon admission to the hospital, episodes of acting out are frequent and stormy for many adolescents. Destructive behavior requires external control. Indeed, the absence of effective internal control over behavior is usually one of the major reasons for hospitalization. Unless limits can be effectively set on his behavior, the adolescent may become overwhelmed by his impulses. If control is to be effectively exercised, it is necessary to have sturdy seclusion rooms on the ward.

Tranquilizing drugs are frequently used to help the patient control destructive impulses and to facilitate establishment of a therapeutic relationship. Since the adolescent requires so much attention, staffing requirements are far greater than for adult patients. The writers do not feel that there should be more than 15, or at the most 20, adolescents on one ward. For the entire unit, as many as 40 adolescents would be a maximum figure for most hospitals; and even this number would require two or three psychiatrists (without other duties) to operate such a unit and provide treatment for the adolescents.

The role of the therapist is a crucial one in the treatment of the adolescent patient. The writers feel that every adolescent patient needs individual therapy, and that this need must be met if there is to be hope of successful treatment. This individual therapy is not the same as psychotherapy with an adult, nor is it exactly the approach one would use with a child.[1, 2, 6, 10, 13-15] Immediate therapeutic goals with the adolescent include an attempt to strengthen his ego and encourage development of his "ideal self." A therapeutic setting is provided in which the healthy portion of the ego can gain control of the situation and permit the adolescent to resume healthy personality growth. Healthy defenses are reinforced and the therapist avoids uncovering threatening unconscious material. Much of the verbal exchange between the adolescent and the therapist will revolve around the patient's immediate behavior and the practical problems of daily living.[1, 6, 7, 13, 16] Thus, discussions with adolescent patients may concern how they are getting along with someone on the ward or may concern their school work or what they are going to do in the future. Emotionally charged conflict areas should be desensitized, with the therapist keeping the discussion on a socialized ego level. For example, the therapist must be aware of the dynamics of sexual problems which the adolescent may bring up, although in therapy these

problems are usually discussed in general terms, with much of the attention focused on appropriate social behavior. However, what the therapist represents to the adolescent may be more important than any verbal interchange between them.

The therapist should act as a substitute parent who is not only strong, consistent and understanding but who also respects the adolescent's integrity as a person.[6, 7, 12] The term "substitute parent" does not adequately describe the nature of the relationship between the adolescent and the therapist, for this relationship is a unique one, combining the role of parent and teacher. Instead of a transference neurosis based on a recapitulation of the relationship with his parents, the adolescent develops an entirely new relationship with the therapist. The therapist should be an "ego ideal" model with whom his patient can identify.[6] It is therefore necessary that the therapist be relatively free of serious character defects and that he have a mature sense of values and ethical standards.

During the course of therapy, the adolescent patient will constantly test the integrity of the therapist. The therapist has the task of accepting and respecting his patient, while at the same time disapproving of behavior which is in any way dishonest.[6, 7] This includes behavior which is morally unacceptable as well as that which is socially unacceptable. Unorthodox as it may seem, the therapist may find himself discussing his own philosophy. The adolescent is especially concerned with questions of justice, of "right" and "wrong" in the moral sphere as well as in the sphere of social behavior. The adolescent needs to know what the therapist stands for.

The adolescent patient goes through several phases during the course of his treatment in the hospital. Initially his relationship with his therapist is characterized by suspicion and hostility. The adolescent expects the therapist to behave just as everyone else has apparently behaved toward him in the past. He tries to find out how sincere the therapist is about helping him, by acting out —with the expectation that the therapist will reject him when he discovers how "bad" the patient is. He is also trying to find out if the therapist cares for him and respects him as a human being. The "testing" period may last for months, and is a very trying time for all concerned.

Every restriction on acting out will be seen initially as proof that the therapist hates him. But at the same time the adolescent is sizing up the therapist as a person, especially with regard to his honesty and integrity. Every effort will be made by the adolescent to corrupt the therapist into allowing him to get away with behavior which should be controlled.[7] If the therapist is too lenient, the adolescent will regard the therapist as a weak person who cannot help him. During this acting out period, the therapist should clearly indicate just where the limits are as far as the adolescent is concerned. It is well to stress justice and the welfare of the group when it is necessary to control acting out. The adolescent is frequently unmoved by arguments that he is harming himself, but he will often accept even severe restrictions on his behavior if he feels that he is unjustly harming someone else.

When the adolescent becomes convinced that the therapist is really trying to help him and that he is respected in spite of everything that has happened, the relationship begins to change. Gradually the acting-out behavior becomes converted to an anxiety neurosis, with the adolescent trying to control his behavior in order to please the therapist and to merit his respect. During this period, his level of anxiety mounts rapidly. He may ask for help in controlling his behavior and may ask for additional medication. He will need to see his therapist frequently for a while, perhaps several times a day. The adolescent should have the feeling that the therapist is ready and willing to see him whenever he needs help.

As the relationship with the therapist becomes more important, sibling rivalry appears among the therapist's patients. This is manifested by demands to be the first one to talk with the therapist and by clamoring for more attention and privileges than the others have. Competition may take the form of doing well in activities and school, as the adolescents begin to resemble a family group. But the adolescents also function as a group to help one another. They can be remarkably tolerant and helpful with the sicker members of the group. Group pressure is often effective in controlling destructive acting out.

During the final phase of hospitalization, the relationship between the adolescent and his therapist undergoes further change. The adolescent accepts the therapist as an ego ideal, borrows the

therapist's personality and incorporates it into his own ego and super-ego.[6] This process may be demonstrated through letters written by the patient. Frequently the adolescent expresses the therapist's ideas as though they were his own. The adolescent is no longer trying to be "good" just to please the therapist. Instead, the therapist is someone to be admired and emulated. Acting out is minimal, and the patient participates readily in the activity program, which he is now able to plan for himself with some guidance. The adolescent seems to "cross the bridge" from a childlike dependence on his therapist to a degree of independence appropriate to his age. This phase of independence and reintegration of ego function may take place in a remarkably short period.[1, 7] The therapist must be able to bow out gracefully and without undue anxiety as his patient suddenly no longer needs him.

If the therapist has been able to keep sufficient emotional distance between himself and his patient, he should be able to discharge the adolescent before hospitalization becomes too prolonged. After about six months, the disadvantages of hospitalization begin to outweigh the therapeutic benefits as far as many adolescents are concerned. Instead of growing and becoming more independent, the adolescent may begin to "adjust" to the hospital or institution as a way of life. If treated intensively, most adolescents can at least reach the stage of functioning outside the hospital within six months and continuing treatment on an outpatient basis, if necessary. The adolescent who is suffering from a severe, relatively fixed schizophrenic illness may require one or two years of intensive treatment in the hospital. In the writers' opinion, if he fails to show some sign of normal adolescent development within a year, the prognosis is poor, regardless of treatment.

Unfortunately, there is a great discrepancy between a recognition of what is needed in the way of treatment and what is actually accomplished. The adolescent cannot tolerate premature separation from his therapist as well as an adult can. Nor is it possible to compromise on staff needs and still provide adequate treatment for the adolescent patient. The writers have had the satisfaction of watching some of their disturbed adolescents leave the hospital much improved and free to continue healthy growth and development. They have also had the painful experience of seeing adolescents regress when their therapists leave the hospital before their patients are ready to get along without them, or when

there are simply not enough therapists to give the adolescents the kind of attention they need. Regardless of what else is done in the way of treatment, the adolescent deprived of individual attentions fails to improve to the degree necessary for adequate functioning outside the hospital.

Summary and Conclusions

Treatment of the adolescent patient requires heavily-staffed units with personnel prepared to meet the developmental problems and special needs of the disturbed adolescent, and establish firm limits on his tendency to "act out" his problems. The therapist must be ready to help his adolescent patient whenever he requires attention, even to the extent of seeing him several times a day when necessary. All personnel must have genuine respect for the adolescent as a person. The therapist especially must have worked through his own adolescent conflicts satisfactorily and should have a mature super-ego. He should be willing and able to help, but must be able to "let go" without undue anxiety when his patient suddenly no longer needs him. Unless such individualized treatment is provided, the hospital will function primarily as an expensive reform school or jail for the disturbed adolescent.

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Galesburg, Ill.

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EFFECTS OF RAUWOLFIA DERIVATIVES ON PSYCHODYNAMIC STRUCTURE*

BY H. AZIMA, M.D., FERN J. CRAMER-AZIMA, M.A., AND R. DE VERTEUIL, M.D.

The purpose of this paper is to report the results of a relatively intensive longitudinal study of a small number of patients receiving Rauwolfia derivatives,** and the inferences arrived at in relation to changes in psychodynamic structure.

The impetus for this study was provided by the growing need in psychopharmacological studies to go beyond the gross clinical effects of a given drug, and to determine alterations of finer psychological events brought about by these substances. It was felt that such studies may help in the selection of cases and the manipulation of the therapeutic field.

Method

The areas of investigation were selected from two psychological states: the schizophrenias and dreams. The reason for the selection of schizophrenic states was the assumption that it is easier to detect changes in a regressed psychic state such as that in the schizophrenias than in a less regressed one, as in the neuroses. The reason for the selection of dreams was the assumption that in a neurotic existence the phenomena nearest, from the point of view of regression, to a schizophrenic existence are those of the dream.

The two areas of investigation were approached as follows:

I. *Chronic Schizophrenic States*

Twenty chronic female schizophrenics in a closed psychiatric setting, and 10 acute (recently apparent) schizophrenics in an open psychiatric setting were chosen for the first part of the study.

Chronic schizophrenics were selected among patients whose conditions had remained stationary for three to 15 years. They had received many somatic treatments before, except Rauwolfia

*From McGill University, Department of Psychiatry and Allan Memorial Institute, and Verdun Protestant Hospital, Montreal. Presented at the 113th annual meeting of the American Psychiatric Association, Chicago, May 1957.

**The Rauwolfia derivatives used in this study were "Rau-Sed" (Reserpine) and "Raudixin" (whole root), kindly supplied by E. R. Squibb & Sons.

therapy. Their average age was 45. They were seen for one week before pharmacotherapy for the evaluation of symptoms, formulation of psychodynamics, and testing. One of the authors (R. de V.) had observed these patients for several years before the present study. The first two items were recorded according to the following outline.

1. Overt behavior.
   a. Verbal and nonverbal communication (intensity, kind).
   b. Participation in ward activities: aggressive-submissive; erotic; anxious; comprehensible-incomprehensible; etc.
   c. Sleeping, eating and excretory habits.
2. Somatic changes.
   Neurological, cardiovascular, etc.
3. Phenomenology.
   a. Organization of thought:
      (1) Organization of spoken language: rate of flow; phonetic order; sense order; etc.
      (2) Organization of spoken logic: comprehensibility; concept formation; phantasmic logic (magic thinking, etc.).
      (3) Organization of formal structure of thought: memory; attention; association; etc.
   b. Organization of mood:
      (1) Elation.
      (2) Depression.
      (3) Anxiety-indifference.
   c. Organization of body scheme:
      (1) Depersonalization; derealization; hallucinations; body delusions; cosmic delusions, etc.
      (2) Cognitive and experiential space-time states.
4. Psychodynamics.
   a. Defenses (kind, intensity).
   b. Drives (emerging, submerging).
   c. Anxiety (emerging, submerging, shifting).
   d. Object-relationship; in bits (internal, external); in whole (internal, external); projection characteristics (threatening, loving, etc.); transference.

   Note the major, immediate means of relationship (oral, anal, genital.)

Psychological tests used were the figure drawing test and the Rorschach. After a week's observation, the patients were put on

the following regimen: reserpine for six weeks (6 to 10 mg. daily); placebo for four weeks; the whole root of Rauwolfia serpentina (raudixin) for six weeks (6 to 10 gm. daily). The high dose of raudixin was used in order to supply the same amount of reserpine as in the reserpine period—the ratio of the whole root to reserpine being 1:700 to 1:1000—in addition to other alkaloids, for the observation of any additional effects.[1]

Psychodynamic exploration was attempted through one-hour interviews twice a week throughout the three periods, and psychological tests. The tests (when available) were repeated after the two drug periods. To minimize the changes due to psychotherapeutic intervention, no interpretations were given; patients were merely encouraged to verbalize their delusions, dreams, fantasies, etc. Because of the refusal to take the tests by some patients at some times during the periods of study, there were only 11 patients at the end who had had three Rorschach tests and 18 who had had serial figure drawing tests. The tests were performed independently by the psychologist, who was ignorant of the scheme of pharmacotherapy.

II. *Recent Schizophrenic States*

The 10 recent schizophrenics were made up of five males and five females, with a mean age of 30, and an average apparent duration of illness of five months. Five had received no treatment previously, and five had failed to respond adequately to chlorpromazine. These were seen for 10 days prior to pharmacotherapy. They were put on reserpine (3 to 10 mg. daily) for an average period of five weeks, followed by 10-day periods of no medication. They were seen in half-hour interviews three times weekly throughout. As with the chronic group, no interpretation was given during the interviews.

It should be mentioned here that the main objective was not therapeutic but the observation of emergent changes in defenses, drives and object-relationships. Each patient was his own control. Consideration was given to the stationary nature of the patient's behavior in the chronic group, as observed by one of the authors for several years. It was thought that one of the most reliable points of reference for emergent changes would be the opinion of a therapist who had known the patients for many years and knew about the natural histories of their illnesses.

III. *Dream States*

Two unmarried women of the same age (31) and manifesting the same symptoms (anxiety neurosis) were seen for a period of six months in psychotherapy. Because of the paucity of dreams (one patient had reported no dreams) it was thought that they were suitable candidates in whom to observe the dream-inducing capacity of Rauwolfia derivatives. They were put on the following regimen: five periods of raudixin, alternating with four periods of placebo administration. Each period consisted of an average of 10 sessions for the first, and eight sessions for the second patient, over a period of 30 days. In addition, both patients had two periods when they received no pills. The fifth raudixin period of the second patient had to be cut to three days because she developed a relatively severe tracheobronchitis. The dosages of raudixin were 800 mg. daily. During these drug, placebo and no-pill periods, in which the patients continued their psychotherapy, the quantitative and qualitative characteristics of their dreams were recorded. Details of the early part of this experiment were reported previously.[2]

Results

The significant findings in each area of investigation will be discussed briefly.

I. *Chronic Schizophrenic States*

Psychodynamic exploration and psychological testings revealed changes which were similar in the two periods of drug administration. There was a certain difference, discussed elsewhere,[1] in the final improvement ratings in favor of raudixin; and this will not be considered here. During the placebo period, all patients except one returned to their pre-drug states. For the sake of presentation, and because of their correspondence, the data from the clinical exploration and psychological testings are combined. Tables 1 and 2 show Rorschach findings after each period of drug administration as compared with the pre-drug Rorschach. This comparison was carrid out for all the usual Rorschach determinants and experience balances. However, only those are recorded here which showed the most significant amount of change—in six or more out of 11 cases. The changes could be considered along three lines:

Table 1. Comparison of Rorschach Determinants on Two Drug Trials

Total No. of cases, 11	Rorschach Determinant	Drug 1 cf. with Pretest			Drug 2 cf. with Pretest		
		Increase	Decrease	Same	Increase	Decrease	Same
1.	R/T to C	3	8		4	6	1
2.	N. of Populars ..	6	2	3	6	3	2
3.	Form %	3	6	2	3	7	1
4.	Sum Color	6	3	2	8	2	1
5.	R to Cds. 8, 9, 10	4	3	4	7	4	
6.	Dd Area %	5	4	2	6	2	3
7.	Anxiety, Indices m, c, C & content	7	1	3	6	4	1

1. *Mood Organization.* The following alterations were observed in this sphere. 1. There was relative, overt increase in anxiety in 12 cases which appeared to be related to the emergence of aggressive impulses. Only one patient expressed a decrease in anxiety. Psychological tests confirmed this observation in seven out of 11 cases tested in the first drug period, and in six in the second. 2. What seemed to be a manic-depressive mood change appeared. A feeling of elation was expressed overtly by eight patients. Two developed what appeared to be manic reactions after both drug periods; and three had hypomanic reactions after the second drug period. In two patients a mild depression followed the manic phase. In the psychological tests, which did not include the "manic" patients, feelings of elation were noted in 10 patients out of 11 tested in the first drug period, and in four in the second drug period. In the latter period, two patients showed depression (Table 2).

Table 2. Rorschach Findings on 11 Schizophrenics on Two Drug Trials

Rorschach Analysis	Drug 1 Reserpine	Drug 2 Raudixin
Over-all improvement	10+	9+
Anxiety indices	7+	6+
Aggressive indices	7+	5+
Oral and anal indices	4+	2+
Genital indices	1+	0
Spontaneity (mood)	10+	4+ (2—)

+=increase
—=decrease

The state of agitation, or a "turbulent phase"[13] has been reported with Rauwolfia therapy; however, a close phenomenological analysis revealed that this condition was close to a manic phenomenon. This assumption was based upon the appearance of some or all of the following states: an experiential state of acceleration ("I am fast . . ., I feel fast . . ., I can't stop doing things . . ., I have to do things . . ." etc.); elation; an increase in the rate of spoken language; and distractibility. In addition changes in psychodynamic structure were considered in this connection. It was noted that in one patient the hypomanic manifestations would appear when the dosage of the whole root was increased beyond 4 gm. This was retested twice.

2. *Ego Organization.* Clinically, there was what could be interpreted as a relative increase in ego strength in 16 out of 20 cases. This was manifest in a better reality contact, a decrease in projection, withdrawal or splitting. Hallucinations became vague and remote. Psychological tests confirmed this impression in 10 out of 11 cases with the first drug period and in nine in the second. Paradoxically, a decrease in control was detected clinically in 13 cases, two of which showed what seemed to be a manic state. In the Rorschach examination, this was evident in six out of 11 cases in the first drug trial and in seven in the second drug trial (decrease in form, increase in reaction time, increase in anxiety indices, greater response to color, etc.). This seemingly paradoxical presence of an increase and a decrease in control could be understood, if the changes in defenses were considered. The decrease in control appeared to be a decrease in schizophrenic defensive structure, mainly that of withdrawal and splitting, and an emergence of repressed impulses.

3. *Drive Organization.* An emergence of repressed impulses appeared to occur, and was associated mostly with aggressive drives. Overtly this was evident in the behavior of three patients, and in the delusions of six other patients. Genital impulses emerged in three cases, in one of which the same erotomanic delusion appeared during both periods of drug administration. In the psychological tests, there was no decrease in destructive tendencies. Aggressive indices showed an increase in seven of 11 cases with the first drug trial, and in five with the second. In general, the emergent needs were destructiveness, of either oral or anal nature. In one patient who developed an elation-depression cycle, the shift in destructive

drives was clearly demonstrated. During the elated phase, she expressed many destructive fantasies and delusions (killing, murdering), while during the depressive phase she showed the reversed trend (being killed and being murdered).

It should be clearly noted here that, in no case was the schizophrenic structure fundamentally changed. What was noted, was a partial shift toward an emerging structure which seemed to fit the general outline of a manic-depressive state. This shift was particularly evident in the patients who did not manifest restitutional activities, and their main defenses were withdrawal and splitting. As has been stated, this shift was transitory and reversed itself during the placebo period.

II. *Recent Schizophrenic States*

There were 10 patients in the recent schizophrenic category. Five manifested a preponderance of restitutional activities, consisting mainly of experiences of persecution, and of persecution anxiety. The five other patients showed a preponderance of withdrawal, narcissistic regression, and an apparent lack of restitutional activities. The selection of cases was deliberate, in order to allow a closer study of what was observed with the chronic schizophrenics.

In nine patients significant changes emerged, which, in large part, confirmed the data observed in chronic schizophrenics. It should be emphasized here that the changes discussed are not the only alterations observed. They are noted because they occurred with varying intensity in eight cases, because they did not seem to be related totally to transference phenomena, and because they seemed to be emergent events not present in the previous phenomenological field.

The general impression was that a break occurred in the schizophrenic defenses, and a partial shift toward manic-depressive organization.

Schematically presented, there appeared to be three sequences of mood changes: indifference, roughly during the first week; elation, roughly during the second to fourth week; followed by depression.

1. *The phase of indifference* was present in six cases. In cases with restitutional activities, this indifference was associated with what could be interpreted either as a decrease in persecutory anx-

iety, or as a widening between the ego and the hallucinated voices. One patient stated: "I am not interested any more... These voices don't bother about killing me," etc. Another patient felt that "the voices are tired out, like a muffled tape recorder... I feel somewhat empty inside...I feel I have no energy... there is a kind of solidness between the voices and me," etc.

2. *The manic phase* was expressed as elation by eight patients, in three of whom it was associated with hypomania: "I laugh more now." One very withdrawn patient said: "I talk to people... I don't have any patience any more, I seem to be always in a rush. I can't wait to do things. I'm just in a hurry... in a hurry within myself... I think too fast, I jump from one topic to another." Another patient had similar experiences: "I want to do something constantly... as if something is pushing me inside... as if sometimes I feel exalted, I mean in good humor." This patient also had many dreams which could be interpreted as denial dreams, where he would do exactly what he was unable to do in reality—laugh, run, destroy.

3. *The depressive phase*, which occurred in four cases, followed the manic phase. There was no phase of depression which did not follow a manic phase.

In addition to the alterations mentioned, other emergent changes were noted:

4. *Emergence of destructive impulses* in the overt behavior of two patients, in dreams of two patients, and in the figure drawings of two patients. One patient who was suffering from the persecutory delusion of being killed, concomitant with a decrease in anxiety in the second week of reserpine therapy, developed several dreams, in which many people were killed, or she was killing many people.

5. *A change from the feeling of being in bits and pieces to the feeling of wholeness* occurred in three cases. In one patient, who was suffering from "confusion... I don't feel I am myself totally," this change was apparent not only in the subjective feeling of "lifting of confusion," of being a "totality," but also in the figure drawings. A drawing before treatment consisted of two superimposed images, a double. During reserpine therapy the two images fused and became one figure.

In one patient, almost all of the changes mentioned emerged with a fair degree of clarity (the typical case). This patient, who

was a doctor of philosophy in literature, was particularly suited to verbalize his experiences. Before drug administration, he described them thus: "I feel I am being ridiculed by people. I am afraid of people because they think I am a communist... I don't feel I am a whole. I am torn in pieces between sex, religion and politics. This makes me confused." On the ninth day of reserpine therapy he stated: "I am not concerned about my problems now. I am connected with the problems, but I am not concerned. I can't be bothered, they are remote... the confusion is lifting..." Five days later, he brought out: "I feel whole again... as if this medicine puts certain parts of my mind to sleep... I feel euphoric. This is my own manic tendency assisted by the drug. I am generally happy now. This is partly euphoria and partly lack of concern... something close to Tennyson's lotus, oblivion." Ten days later (fourth week of reserpine administration), he mentioned, "At the beginning I felt euphoric. Then when you increased the medicine to 12 pills [12 mg.], I felt both euphoric and lethargic... since you have increased the medicine to 16 pills [16 mg.], I feel depressed, I am not carefree and happy any more."

III. *Dream States*

The comparison of dreams during the five raudixin periods and four placebo periods in the two neurotic patients studied, revealed the following differences:

1. The number of dreams was much greater during raudixin periods (the second patient had no dreams during placebo periods). It was also noted that the number of dreams kept increasing with each drug period except the last, which followed a placebo period and a period with no pills at all. (Table 3.)

Table 3. Comparison of Number of Dreams During Raudixin and Placebo Therapy

	None	R	P	R	P	R	P	R	P	None	R
Case 1—											
No. of Sessions ..	12	11	11	9	10	10	10	11	10	10	10
No. of Dreams	2	6	0	11	3	18	2	19	2	0	13
Case 2—											
No. of Sessions	12	8	9	8	6	9	9	8	9	9	3
No. of Dreams	0	2	0	3	0	8	0	12	0	0	4

None=No pills
R=Raudixin
P=Placebo

2. The vividness and clarity of dreams were much greater during the drug periods. This was reported by both patients after the third trial.

3. The first patient reported three anxiety dreams during the drug periods, consisting of undisguised death wishes against her mother. There was one anxiety dream during the placebo period, related to the emerging of homosexual wishes. The second patient's first dream was an anxiety dream. This was reported in the third session of the first raudixin period and was followed, on awakening, by a mild depressive episode. The dream concerned a "dead body—a mummy, in the drawer. I had to get rid of it." The analysis of this dream revealed death wishes directed to the therapist, realized by the oral incorporation of him, through pills. The depressive episode was the patient's mourning about loss of the fantasied, introjected good object (the therapist).

The emergent vicissitudes of aggressive impulses were indicated in the first patient by three mild depressive episodes during three consecutive drug periods, all of which were related to the fantasmic destruction of the good internal mother imago. All three depressive episodes were lifted after the uncovering of underlying events.

It should be noted that, because of the paucity or lack of dreams during placebo periods, a fair comparison of other aspects of dream formation could not be made. However, the increase in dreams could be indicative of a change or dissolution of certain ego defenses and an emergence out of repression of unconscious processes, possibly involving destructive object relations. It is not contended that these conclusions are definitive or universal. They are taken as interesting leads, indicating the possibility of certain inferences, to be discussed presently, about the mode of action of Rauwolfia in the organismic sequences of events.

Discussion

The foregoing series of observations indicates that in cases where changes occurred during Rauwolfia therapy, which with a certain degree of certainty could be considered emergent changes not related to the psychotherapeutic field per se, they consisted of the following: (1) a break in schizophrenic defenses; an emergence out of the repressed, particularly of aggressive impulses; and, what appeared to be a shift from paranoid to manic-depres-

sive organization; and (2) an apparent increase in dream production in neurotic patients, indicative of the emergence of repressed materials. The theoretical problem is how to relate these phenomena to the administration of Rauwolfia derivatives. The writers will attempt a conceptualization in this regard, with explicit notice of its speculative nature. What will be said is not definitive. It may, rather, be said to be valuable in explaining *certain* phenomena observed in *certain* cases.

In a psychoanalytic frame of reference, it can be said that the drug affects the drives-system, or the ego system, or the super-ego system (the internalized reality control system) or all of them. From an epistemological point of view, it is more comprehensible to assume that a chemical substance affects the drives-system rather than other systems, because the drives, as Freud particularly emphasized, have an organic source. There is evidence to suggest that Rauwolfia derivatives influence diencephalic neuronal sets[4-6] which are the organic locales of certain drives. It can be assumed, hence, that the drug, under certain circumstances, intensifies or releases the drives (particularly aggression), which break through the inadequate schizophrenic defenses. The emphasis which the writers lay on the destructive impulses in Rauwolfia therapy is in part substantiated by the appearance of manic-depressive states, and in part by other reports indicating the frequency of depressive reactions in hypertensive patients treated with Rauwolfia. The role of aggression is considered important in the psychogenesis of hypertension and manic-depressive states. Also certain psychoanalytic concepts, proposed by Freud,[7] Rado,[8] Fenichel,[9] and Lewin,[10] are that changes in super-ego elements are responsible for the manic states. Elation may be seen as an aggressive rejection of suger-ego instrumentality. Thus, it may be conjectured here that the apparent release of destructive tendencies in Rauwolfia therapy results in destructive rejection of super-ego elements and the appearance of manic states.

Another very closely connected hypothesis would be to assume that, instead of changes in sources of drives, a shift in the cathecting energy of the mind, or "psychic intensity"[11] occurs under Rauwolfia. This was particularly evident in the initial phase of indifference, which was mentioned previously. This indifference, this diminution of object cathexis, affected more specifically the persecutory objects (hallucinated or delusional), which became

vague and remote. It may be conceptualized that this relative shift in cathexis, when affecting the "censor," or the internal controlling imago percepts, may induce dreams or a manic state.

These two closely related hypotheses can be combined; and it can be stated that destructive rejection of the super-ego becomes facilitated if it is initially partially decathected. The failure of this rejection would initiate depression and subsequent regression to a paranoid position. This assumption seemed confirmed by consideration of the patients who improved. All improved patients, particularly four who could be discharged after the second drug trial, were those who showed elation but not depression.

As was said at the onset, these conceptualizations are only tentative, and only applicable to some patients of the present series; and their ultimate validity needs further studies. However, the reasoning implies that Rauwolfia derivatives are not mere "tranquilizers" and possess more complicated and intriguing properties. From these studies, can be seen the necessity for longitudinal psychological studies in small numbers of patients. Regardless of the categories of improvement during a pharmacotherapeutic treatment, it is essential to determine psychodynamic vicissitudes as well as the organic vicissitudes associated with them. As one of the writers has pointed out elsewhere,[12] a rational psychopharmacology transcends gross, clinical mass studies and includes finer psychological events in concomitant occurrence with the administration of a substance.

Summary

The influence of Rauwolfia derivatives on schizophrenic and dream states was investigated. The investigation was carried out through intensive psychodynamic exploration of a small number of schizophrenics (20 chronic and 10 recent cases) and two neurotic patients on intensive psychotherapy, with all patients receiving Rauwolfia and placebos.

In the schizophrenic patients, a break in defenses was noted, with emergence of particularly aggressive impulses, and what appeared to be a partial shift from paranoid to manic-depressive organization. In the neurotic patients, there was an increase in dream formations during Rauwolfia administration.

The hypothesis was put forward that Rauwolfia derivatives may affect the sources of drives, or the cathecting energy of the mind.

The shift in cathexis could be conceptualized as affecting mainly the super-ego components of psychic representations.

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A SECOND CONTRIBUTION TO THE STUDY OF THE NARCISSISTIC MORTIFICATION*

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To those who have read some of the previous papers of this author, another on the subject of the narcissistic mortification may be something of a surprise. After many years of preoccupation with the study of this phenomenon, it is embarrassing to be forced to admit that an important aspect has eluded the attention of this writer completely. In mitigation of such an "offense," one may plead that if he stumbles on something new, there is rarely anybody around who can explain it clearly and distinctly, and in consequence, a description of a hitherto unknown phenomenon must appear confused, blurred, and even contradictory.

In addition to the "conscious" difficulty connected with an accurate portrayal of the narcissistic mortification, the writer has also had to overcome his own unconscious resistances. Probably, the recognition that the narcissistic mortification has nothing to do with our own desires was too difficult to be accepted, although the writer had recognized long ago that patients, in addition to repressing their infantile wishes, eliminate from their consciousness other phenomena, the so-called narcissistic mortification.

It was thought, using a descriptive approach, that a narcissistic mortification took place whenever the subject became an object of another subject. An attack by a robber was used as illustration in which the robber had the power to force the subject to do what he wanted. The consequent narcissistic mortification was defined as a sudden loss of control over external or internal reality, or both, by virtue of which the emotion of terror is produced, along with the damming up of narcissistic libido or destrudo. Unfortunately, the narcissistic mortification was described metapsychologically, according to this definition, as caused by the damming up of this narcissistic libido or destrudo. Furthermore, the phrase, "loss of control," does not indicate sufficiently clearly that this loss of control is the result of the power of somebody else to overwhelm the subject. The description appears to be false, and therefore in need of correction. For example, should this robber return

*The opposite of the narcissistic mortification, the "narcissistic bliss," will be discussed in another paper.

after a few minutes, and give back the money he had taken, the subject would, of course, while rejoicing in the robber's change of heart and the return of the property, keep on resenting the power to have taken it away in the first place, *and would want to get even.* In addition to the restitution, a punishment for impudence would help to eliminate the humiliating experience of having been obliged to yield to the robber's threat.

It should have been obvious from the beginning that the experience of terror which accompanies a narcissistic mortification cannot be caused merely by the dammed-up wishes of the subject, but must result from the power of another, and stronger, subject, which succeeds in inflicting a narcissistic mortification on the weaker individual. One must learn, finally, to differentiate between unpleasure due to the damming up of narcissistic and object libido and destrudo, and unpleasure felt when the subject, against his will, becomes the object of the instinctual gratification of an aggressor. It must be understood that a neurosis is caused, not only by the unconscious infantile demands of the patient, but also by the unconscious narcissistic mortifications, both internal and external.

It is necessary to face the fact that, in addition to the instinctual tensions caused by repressed wishes, the unconscious of the neurotic contains memories of aggression discharged by external and internal sources. In this way, the neurosis hides not only what we want, but also what others have wanted, and inflicted upon us. Not only do we have to deal with the wish and its defenses, the dammed-up object and narcissistic libido and destrudo, but also with the "scars," referred to as narcissistic mortifications, which were produced by others, and by ourselves.

Having been attacked by the robber, a victim may mobilize his own aggression, fight him, and win. In that case, the winner experiences an aggressive pleasure, due to his ability to gratify his object and his narcissistic destrudo. Or, the victim may decide to refrain from resisting, and will then experience a damming up of narcissistic and object destrudo. However, all this is secondary. The phenomenon of narcissistic mortification is due, metapsychologically, to the power of somebody else, who uses one against his will because of this power. Further, it appears that two kinds of aggressor *may* be distinguished: The force which overwhelms one may be that of an external object (another person,

an animal, or a natural phenomenon, often perceived animistically and personified), or one may be overwhelmed by a force within himself, which represents the power of a part of the personality to force the *total* personality to do what it resents. In accordance with the description of this aggressive force as outside, or inside, the resulting narcissistic mortification is spoken of as external, or internal. Such examples as a parapraxia, or occasional fits of temper, can be cited as representative of a normal internal narcissistic mortification. Analysts (or their wives) who would insist that a normal person never commits a parapraxia and never is overcome by his temper, of course will be entitled to deny the presence of a normal internal narcissistic mortification. However, even they will agree that pathological cases no doubt exist, in which a part of the personality is able to impose its will on the total personality.

Insofar as it may be possible to avoid terminological misunderstandings, a schematic presentation of the development of libido and destrudo is offered. The hungry infant, experiencing an increased tension of the oral libido, learns that wishing does not eliminate his hunger. He discovers that sucking the breast of his co-operating mother frees him from his tension, and provides the sensation of pleasure in addition. We assume that incorporation of the milk decreases the object libidinal tension, and that the *act* of sucking decreases the narcissistic libidinal tension. It seems that the elimination of instinctual tension is allied more closely with the discharge of object libido, while the experience of pleasure is connected mainly with the discharge of narcissistic libido.* Experiments in which the elimination of hunger is separated from the experience of pleasure (feeding a hungry subject with a tube) indicate that the *act* of eating produces a discharge of object and narcissistic libido, under normal conditions. However, if the food is incorporated passively, the disappearance of the hunger leaves the subject *partly* frustrated. The unpleasure of this frustration seems to be due to the lack of discharge of narcissistic libido, which remains in the form of a narcissistic tension. No doubt some individuals have more, and others less, narcissistic libido, and require more or less activity accordingly. It appears that hereditary, as well as developmental, factors are responsible for

*Under normal conditions, the infant experiences sexual pleasure because his mother enjoys feeding him.

such individual differences; but under normal conditions, each individual discovers how much activity he requires.

However, our patients need our help not only to discover *what* they "really" need, but *how* they hide these needs in order to keep them unconscious. In order to avoid the recognition of their object libidinal aims, some patients mobilize a great amount of narcissistic libido, and appear to be suffering from their *narcissistic tensions*. Others may use the opposite mechanism. *Narcissistic tension* may be due to an inability of the total personality to use the body for a co-ordinated discharge, or it may be due to the lack of a co-operating object. The study of *narcissistic tension* appears difficult because it is not easy to separate the discharge of object libido from the discharge of narcissistic libido, and, furthermore, a frustration of sexual wishes often leads to the mobilization of aggressive tensions; and consequently, where the inquiry starts with the aim of separating narcissistic from object libido, one finds that a person has begun to produce derivatives of destrudo. Accordingly, a diagrammatic presentation of the development of destrudo is indicated.

In addition to sexual tension, the infant experiences also an aggressive tension, with or without provocation from the outside world. This aggressive tension, which is caused by primary narcissistic destrudo, cannot be gratified by the infant's wishes. Only after such motoric acts as crying and biting are discovered does the infant achieve gratification of his aggression. Whenever this discovery takes place, the original primary narcissistic destrudo becomes divided into object destrudo and secondary narcissistic destrudo. To be able to experience aggressive pleasure, the infant has to be able to find an object whose resistance he succeeds in overcoming. It is not easy to separate the discharge of object destrudo from that of secondary narcissistic destrudo; but such separation appears to be essential for the legitimate use of the terms object destrudo and secondary narcissistic destrudo. Perhaps it may be assumed that crying represents chiefly a discharge of object destrudo, and that the secondary narcissistic destrudo is discharged after the infant succeeds in overcoming the resistance of an external object ("forcing" mother to feed him).

The pleasure principle implies an immediate and unconditional urge to discharge tension, and an intolerance of any acceptance of internal or external narcissistic mortifications. Not being able to

function in accordance with this principle, the infant may modify the original pleasure principle into the reality principle, or he may use the defense mechanism of repression or denial, and remain unaware of the limitations of his power. To cure a patient, one must not only show him how the neurosis protects him from the recognition of these basic facts of life, but also, must prove to him that the price of blindness to what goes on is out of proportion to what he gains from his illness. The individual who accepts the reality principle is not only prepared to tolerate, modify, and postpone the discharge of his wishes, but is able also to recognize his narcissistic mortifications and to try to eliminate them.

Without denying a hereditary factor, most analysts assume that the decision between repression, or facing the problem and attempting to solve it, is caused by developmental factors. It seems that an infant is able to absorb considerable unpleasure, and to assimilate and adjust to external and internal reality, provided that he receives sufficient love and protection from his parents. Of course, we do not know exactly how much is too much, and how little is too little. We do know, however, that patients who have adhered to their childhood decision in favor of repression are able, with psychoanalytic help, to reverse the course of their lives, open their eyes, and return to their consciousness what they had repressed or denied. While it is impossible in this paper to elaborate on the various aspects of what has been referred to before as the help offered by the analyst, one should not avoid trying to know, and to name for the patient what he has tried to overlook, hide, minimize, and distort. Some excerpts from the case history of a patient will be presented as illustration of these theoretical statements.

Mr. Marshall started his treatment with the diagnosis of anxiety neurosis. However, after a few months had passed, and he had developed enough confidence to decide that he could discuss all his problems with his analyst, there was no difficulty in recognizing him as a patient suffering from paranoid ideas (although not schizophrenic or schizoid). At the beginning of his treatment, he was convinced that some of the leading members of his firm were hostile to him and wanted to get rid of him. He had no insight into the fact that these ideas were caused by his illness. The exact content of his fear became analyzable only after he had established a stronger transference, and had begun to accuse his ana-

lyst of being as hostile as his boss. However, as the analyst refrained from participating in this game, he began to doubt the validity of his accusations.* In this way, the first few months were used to transform a paranoid patient into a patient with paranoid character traits, and to permit him, in the purified atmosphere of the analytic transference, to begin to realize that his enemy was inside himself.

While a "negative proof," so-called, of the analyst's lack of hostility usually is impossible, enough material was accumulated after many months of the analysis to show the patient that his statement, "He hates me," was highly improbable. In addition, and possibly more important, the patient began to realize that he, like other human beings, lacked the ability to experience directly the feelings of other people, and, therefore, could not afford to neglect his sense organ perceptions, but would have to take the time and effort to use them in the act of forming proper conclusions. Could it be that the conviction that his analyst hated him was still less frightening than the recognition that he actually hated himself, and had no choice but to suffer from this hatred? Perhaps he found his inability to influence the analyst's hostility less painful than a failure to control his own. Therefore, the problem was not whether the analyst hated him, but why he hated himself, a problem which obviously could not be approached and solved while it remained buried behind the idea, "He hates me."

Slowly and painfully, it became evident to him that he preferred to accept his inability to influence his analyst, and that his complaint of being hated protected him against the recognition that he hated himself. He certainly did not believe that it was in his power to deal successfully with his self-hatred, which finally became recognized consciously in the form of a destructive and primitive self-criticism. The mechanism of projection originally had helped him to change, "I hate myself," into, "He hates me." Now, he had to recognize that this change protected him from the recognition of his inability to control his own feelings. His fear of being unable to control the feelings of others was used to hide and deny the fact that he was scared because he could not control himself.

*Notwithstanding the uninspired witticism, "Who listens?" the analyst is not only the one who listens, but also the one who refrains from acting, or at least, is not lured into acting as the patient wants him to.

At this stage of his analysis, he already had started to change and no longer deserved the diagnosis of paranoia, but could be referred to rather as a paranoid character. He no longer maintained naïvely that others hated him, but knew that his character made him *suspect* everybody of hating him. He no longer believed that he had the power to experience the feelings of others directly, and that he could *know*, therefore, that they hated him. But, he thought that he had no choice but to walk around suspecting hostility everywhere. Insofar as this was one of his character traits, he was right, but he was wrong in assuming that this character trait represented something which could not be changed. Whenever a character trait appears to be extremely rigid, leading to unnecessary conflicts, one is permitted to suspect that this character trait, instead of expressing a harmonious solution of what the patient "really" wants, serves to hide and deny what the patient is afraid to face.

In the analysis of his projection, this patient became aware of how his own hatred could be used to ward off his love, and it became possible to suggest that his fear of being unable to control his aggression was caused, on a deeper level, by the unconscious fear of having to face and accept his sexual needs. After the patient had recognized, worked through, and given up, his method of dealing with his aggressive impulses by projecting them onto others, he began to understand how aggression was used as countercathexis against his infantile love. This infantile love represented latent homosexual wishes derived from his negative Oedipus complex. Actually, he was more afraid of his love than of his hate, or he preferred to hate as long as his hatred helped him to keep his infantile love repressed. As a result of working through his resistance against the recognition that his aggression had become so strong, rigid, and important because of his reluctance to face and learn to assimilate his infantile sexual wishes, he succeeded in freeing himself from the use of aggression as a means of repressing his sexual feelings. Now he began slowly to comprehend that his neurotic defenses had failed to produce a symptom because he would not have tolerated such a foreign body, which would have forced him to admit that he was not even master in his own "home." Instead, he had to use a pathological character trait because it protected him from the narcissistic mor-

tification connected with the presence of a neurotic symptom.* He slowly began to realize that even if his analyst did hate him, he could not "feel" this hatred directly, but could only detect its presence by assembling a certain number of sense organ perceptions which would indicate the hatred within certain limits of probability.

It was pointed out to him that his accusation of hatred contained a certain element of truth, but was misunderstood because this hatred was attributed to the analyst. There was somebody in the room who hated him, with a hatred which could be perceived directly without sense organ perceptions, but this "somebody" had to be himself. It then appeared that the inability to "know" the analyst's thoughts, or to "feel" his feelings, bothered the patient more than the fear of being hated by him. "How can I live without knowing what others think of me?"

Obviously, the analyst would not be interested in discouraging the examination of others, and the drawing of correct conclusions about their feelings on the basis of these perceptions. All that was denied was the patient's magic omnipotence of thought. The patient was reminded that his analyst was not ashamed of having to collect evidence, bit by bit, before trying to form his opinion, and that he did not rely on some strange power to "guess" the patient's ideas. In the transference situation, the content of the projection, "He hates me," appeared less frightening than the actual limitations of the patient's power to find out what the analyst felt about him, and therefore was accepted with less reluctance.

It appears that wishes representing the same instinctual fusion, and belonging to the same stage of development, may produce different results when repressed. In cases where the patient, during analysis, changes from psychosis to character neurosis, and then begins to experience his character trait as something alien to his total personality, and therefore accessible to analysis because it begins to bother him, an analytic investigation of the factors responsible for the "choice" of the neurosis shows that one of these factors appears to be the narcissistic mortification. Pa-

*Having discussed the problems of the choice of neurosis in other papers, this writer is satisfied to remind his readers that, in addition to the understanding of the dynamic factors responsible for the neurotic defenses, the study of the final form of these defenses (neurotic symptom, neurotic character trait, psychosis, or perversion) should not be neglected.

tients who, for various reasons, are unable to admit that they do not have an absolute control over themselves, have no choice but to use a psychotic defense in order to avoid accepting an internal narcissistic mortification. Other patients, who remain able to differentiate properly between inside and outside, but regard themselves as having an absolute power over their own personalities, will use a neurotic character trait instead of a neurotic symptom.

In the case cited, Mr. Marshall preferred his inability to control his suspicions to the recognition of how much he dreaded being overwhelmed by his desires, controlled by his ego, or criticized by his super-ego. He began to realize that what he considered to be his "personality," character, or "self," whichever term one may prefer, represented only one part of him, chiefly his ego, which kept the other parts of his personality repressed. In order to be cured, he had to change from an external conflict, "He hates me," to the acceptance of an internal conflict, "I cannot control myself." Generally speaking, it cannot be argued that the unpleasure connected with the idea of being hated by others is smaller than the unpleasure of hating one's self. While we are unable to measure quantitatively the unpleasure we examine, we cannot help but try to evaluate and estimate its relative strength.

There comes a day in each analysis when the patient has to be shown that, in addition to his curiosity about himself and others, he has a strong urge not to find out what is true. The biblical story of Adam and Eve and the fruit of the tree of knowledge, independently of its religious meaning, could be used to illustrate the fact that many of us have an urge to discover "the truth," and, at the same time, experience a horrible fear of giving in to this urge. For example, although this patient was afraid of his analyst's hatred, he did not mind staying with him. Yet, if the analyst had really hated him, it would have been better for the patient to leave. Some patients use the fear of being hated as protection against hating themselves. However, there are also patients who appear to prefer self-hate as a denial of hatred from external objects. Accordingly, it seems that the various neurotic defense mechanisms protect us from becoming conscious of an original traumatic unpleasure, and that the unpleasure connected with the opposite instinct fusion, used in countercathexis, and the unpleasure of another form of narcissistic mortification,

are used to hide the originally repressed or denied event. In analysis, therefore, the patient who complains because he believes that other people hate him must be helped by his analyst to discover that this hatred, of which he is afraid, is used to protect him from finding out that he hates himself—and furthermore, that this self-hatred was mobilized originally to repress his helpless love.

When this is the structure of the defense mechanisms, the attitude of the total personality toward their result must be examined. When a patient like the one discussed has accepted, or shall we say, has been overwhelmed completely by his fear of being hated, he is usually referred to as psychotic, and his analysis will be possible only if his psychotic acceptance of his projection weakens with the help of the transference, and he can change his paranoia into a paranoid character trait. Even a slight understanding that the hate he is afraid of is unconsciously provoked may be sufficient to help him recognize that the hate he is afraid of is his own emotion.

Finally, in order to terminate the analysis of a neurotic character trait, this ego-syntonic character trait must change into a foreign body from which the patient suffers. He will become aware, only then, of an internal conflict, so that he will perceive the needs of his id, the tendencies of his ego, and the demands of his super-ego, all of which are incapable of gratification by the (reluctant) total personality of the adult. In the case discussed, it was possible to terminate the analysis successfully, because the exposure of infantile wishes and their defenses took place under conditions which made possible a sublimation of the infantile character of the repressed desires. These conditions cannot be discussed in this paper, in which some of the clinical material gained in the analysis of this patient is used to illustrate in a concrete manner some aspects of the narcissistic mortification which this author *overlooked* in his former reports.

Conclusions

1. It appears that the probability of therapeutic success increases with a greater understanding of the structure of the defense mechanisms.

2. In addition to the understanding of the unconscious repressed and dammed-up infantile wishes, the understanding of the un-

conscious, denied, narcissistic mortification should not be avoided. For the patient to be cured, not only his instinctual wishes, but also the scars due to external forces, must be exposed and dealt with.

3. The analyst must not only deal with the frustrated desires of his patient, but must expose, also, the denials used by the patient to avoid facing the fact that he is also an *object* of external aggression (not merely a subject).

4. The discharge of aggression against the self produces a feeling of terror which mobilizes the total personality in an attempt to eliminate this terror, either by dealing realistically with the aggressor, or by denying what has happened.

5. In the beginning of his treatment, the patient described in this paper behaved as if he had accepted completely the result of his projection, the paranoid idea of being persecuted. During his treatment, this paranoid idea changed into a paranoid character trait, the analysis of which disclosed that, although it contained elements of the total personality, it did not represent a harmonious compromise, but expressed chiefly the ego, which had succeeded in overwhelming the total personality.

6. This patient's projection, responsible for his statement, "He hates me," represented not only a partial discharge of his own aggression against the self by internal identification with the external aggressor, but expressed also an acceptance of an external narcissistic mortification, "He hates me, he has the power to hurt me." In addition to the repression of his hostility, the paranoid idea contained a denial of his inability to stop his discharge of aggression against himself; "It is not true that I cannot control my own aggression. The truth is I cannot control *his* aggression."

7. The consciousness of aggression was used by this patient to do more than keep his sexual wishes unconscious: "It is not true that I am afraid of sex. The truth is that I am afraid of aggression." This consciousness also helped the patient to deny his failure to control his own sexual wishes by causing him to accept the failure to control the sexual wishes of external objects: "He doesn't want to like me, and there is nothing I can do about it."

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THE RESPONSE OF CHRONICALLY HOSPITALIZED, LOBOTOMIZED PATIENTS TO TREATMENT WITH CHLORPROMAZINE AND RESERPINE*

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Introduction

The introduction of each new method of treatment brings with it a need to evaluate it on chronically ill psychotic patients previously exposed to other treatment procedures with unsuccessful results. For this reason, it is especially desirable to investigate the response of chronically hospitalized, lobotomized patients to the ataractic drugs, chlorpromazine and reserpine. In a review of the literature on chlorpromazine and reserpine, no formal studies on this particular aspect could be found. There were, however, references in numerous reports of the drugs' effect on lobotomized patients.

Lehman and Hanrahan[1] reported on the treatment of four lobotomized patients with chlorpromazine. Two were described as having improved, one as being unchanged, and one still under treatment. Lehman,[2] in a subsequent study on 29 lobotomized patients (See Table 1), reported two as much improved (6.0 per cent), nine as improved (31.1 per cent), 16 as controlled (55.1 per cent), and two as unimproved (6.9 per cent). He concluded that chlorpromazine produced excellent results in the treatment of lobotomized patients who became uncontrollably excited. Cohen[3] referred to a patient who had not responded to electric shock, deep insulin coma therapy, or lobotomy, yet who had a complete remission on chlorpromazine alone. Large doses were a consistent requirement in all such cases.

Pollack[4] attempted to evaluate the use of chlorpromazine as a prognostic test for patients upon whom prefrontal lobotomy operations were contemplated. As a result of his findings, he felt that chlorpromazine was a valuable aid in determining the choice of patients for such operations. He also emphasized the fact that these patients had previously been treated with insulin, electric shock, or other types of therapy with temporary, slight, or no results. Some of the patients treated had shown only a tran-

*From Spring Grove State Hospital, Catonsville, Maryland.

sient improvement following prefrontal lobotomy, and then had continued with their disturbed behavior or delusional ideas. Pollack[4] felt that a number of these patients showed maintained improvement with chlorpromazine. He also noted no increase in convulsions with use of this drug.

Barsa and Kline,[5] in reporting on the use of reserpine with disturbed psychotic patients, presented results on 11 lobotomized patients who had been treated with reserpine (See Table 1). Of these 11 none was considered markedly improved (0 per cent), three were considered moderately improved (27.2 per cent), four as slightly improved (36.3 per cent), and four as not improved (36.3 per cent).

To shed further light on the relationship between psychosurgery and treatment with chlorpromazine and reserpine, it was decided by the authors to review the case histories of all patients who had been lobotomized since psychosurgery was instituted at Spring Grove (Md.) State Hospital.

Methodology

A review of the records of Spring Grove State Hospital revealed a total of 122 patients lobotomized since the institution of this treatment procedure there in 1946. Of the 80 patients remaining in this hospital, 55 had received either or both chlorpromazine and reserpine in the period between July 1954 and April 1956. Twenty-seven patients were treated with chlorpromazine only; 12 were treated with reserpine only; seven were treated first with chlorpromazine, then with reserpine; three were treated first with reserpine, then with chlorpromazine; and one was treated simultaneously with chlorpromazine and reserpine. All of the cases cited so far were treated postoperatively. There were only three patients treated both before and after lobotomy with chlorpromazine and/or reserpine.

Reactions to the drugs were graded as indicated in a previous publication[6] from: (a) reports of the patients' ward psychiatrists, (b) nursing notes, (c) interviews with nursing personnel managing the patients, and (d) interviews with the patients. A reaction was graded as *Marked Improvement* if all the reports indicated a complete reversal of a patient's attitude and behavior, with an increasing participation in ward activities and interpersonal relations; *Moderate Improvement* when all the reports indicated that

the patient was less disturbed, more easily managed, and could be persuaded to participate in some activity; *Minimal Improvement* if the patient seemed less disturbed than usual to the medical and nursing staff who were thoroughly familiar with the pattern of the patient's behavior, but where there was some difference of opinion; *No Change* if the patient seemed unaffected by the medication; and *Worse* if there was an intensification of regressive behavior over a prolonged period, and the patient seemed to do better when off medication.

The minimal period of observation of these patients was six months. The usual dosages ranged from 100 mg. to 400 mg. daily of chlorpromazine, or from 3 mg. to 6 mg. of reserpine. The patients were placed on drug treatment by their respective ward physicians, and no attempts were made to influence the use of either drug by the ward physician. The majority of patients in this study had been exposed to other modalities of treatment, such as individual or group psychotherapy, electric convulsive therapy, or insulin shock. In most instances, psychosurgery had been finally decided upon as a matter of last resort.

Since many of the patients had been lobotomized in years previous to the authors' contact with them, they had to be given clinical evaluations based upon the data available in progress notes (which at times were rather meager) and upon what could be gleaned from their subsequent hospitalization courses. In view of this circumstance, it was decided to re-evaluate the postlobotomy status of these patients as improved or unimproved, according to the following criteria. Slight fluctuations or temporary changes in clinical status that were noted in the records were not considered to be descriptive of improvement. As suggested by Noyes,[7] only those cases which displayed a noticeable amount of improvement for at least a year were considered improved.

Data

Since there were several different groupings on the basis of drug administration, it was felt that the data might best be presented in a tabular form. The data from each drug treatment group were then catalogued as to response to the drug; the ages patients were first hospitalized, lobotomized, and started on drug treatment; and the types of response to, and the complications resulting from, psychosurgery.

In Table 1 results are presented showing the reactions of postlobotomized patients at Spring Grove who were treated with chlorpromazine, as compared to those treated with reserpine. So that the findings might be compared to previous research with the drugs, there are also shown the findings of two other studies reported in the literature, Lehman[2] with chlorpromazine, and Barsa and Kline[3] with reserpine. It is interesting to see how closely the Spring Grove results and those from the literature parallel each other with both drugs.

Table 1. Reactions of Postlobotomy Patients Treated Only with Chlorpromazine or Reserpine

	Chlorpromazine				Reserpine			
	SGSH*		Lehman		SGSH		Barsa and Kline	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Marked improvement ..	3	11.1	2	6.0	0	0.0	0	0.0
Moderate improvement	7	25.9	9	31.1	2	16.7	3	27.2
Minimal improvement..	9	33.3	16	55.1**	6	50.0	4	36.3
No change	7	25.9	2	6.9	4	33.3	4	36.3
Worse	0	0.0	0	0.0	0	0.0	0	0.0
Unclassified	1	3.7	0	0.0	0	0.0	0	0.0
Total cases	27	100.0	29	100.0	12	100.0	11	100.0

*SGSH=Spring Grove State Hospital. The chlorpromazine average dosage ranged from 100 to 400 mg. daily. Duration of treatment, four to 65 weeks. Reserpine average dosage ranged from 2 to 9 mg. daily. Duration of treatment, 22 to 43 weeks.

**Described as "controlled."

The patients of the largest lobotomized group in the writers' own study, the 27 treated with chlorpromazine, are reported according to age at first hospitalization at Spring Grove State Hospital, age lobotomized, age when drug treatment started, duration of treatment in weeks, and the response to drugs. (See Table 2.)

An observational analysis of the relationship of age when first lobotomized to age when drug treatment was instituted shows no particular correlational insights. Patient 2 (J.S.) was placed on a placebo after 35 weeks of treatment and for a period of 15 weeks maintained her improved status. Patient 7 (W.T.) initially showed moderate improvement, but, after several weeks of treatment, started to regress to his former level of being extremely delusional and hallucinated. It might be added that, in spite of this regres-

Table 2. Biographical and Treatment Variables, and Response to Chlorpromazine

Patient	Age at First Hospitalization at SGSH	Age Lobotomized	Age Drug Treatment Started	Treatment (in weeks) as of April 1956	Response to Drug 1st Course	Response to Drug 2d Course
1. M.L.	33	40	44	49	xxx	
2. J.S.	39	47	48	35—P(15)	xxx	xxx
3. I.B.	39	43	44	36	xxx	
4. R.J.	18	21	22	72	xx	
5. M.H.	23	29	37	34	xx	
6. M.Ho.	21	35	43	28	xx	
7. W.T.	42	48	51	57	xx	NC
8. N.W.	26	36	42	40	xx	
9. J.M.	25	29	31	25	xx	
10. M.R.	38	40	43	15	xx	
11. J.D.	24	36	43	65	x	
12. A.J.	28	50	51	31	x	
13. I.V.	52	56	64	38	x	
14. V.S.	40	43	51	32	x	
15. T.M.	20	23	27	59	x	
16. R.S.	22	36	44	20	x	
17. A.B.	43	50	58	8J	x	
18. I.W.	28	38	46	35	x	
19. H.Br.	26	40	43	21	NC	
20. W.S.	31	32	40	15	NC	
21 M.B.	21	39	45	3—J9	NC	xx
22. J.D'A.	23	31	39	16	NC	
23. T.K.	19	25	34	27	NC	
24. G.L.	45	47	47	7	Unclassified	
25. T.V.	18	23	31	37	NC	
26. M.P.	22	31	33	4	NC	
27. S.Be.	28	19	28	4	x	

P=Placebo. J.=Jaundice. xxx=Marked improvement. xx=Moderate improvement. x=Minimal improvement. NC=No change.

sion, and for reasons unknown to the writers, no change was made in the dosage of chlorpromazine being administered. Treatment of Patient 11 (J.D.) was stopped after 65 weeks with very little response.

After eight weeks of treatment, Patient 17 (A.B.) developed jaundice, and treatment was stopped. The slight improvement that he had displayed was maintained, and treatment was not started again. Patient 21 (M.B.), after three weeks of treatment, developed jaundice, and treatment was stopped. He had initially shown no response to treatment, and a few months after the cessa-

tion of drug treatment, he began to regress to a very disturbed state. The patient was then placed on another course of chlorpromazine; and after nine weeks of treatment, although the content of his thinking showed little change, there was a dramatic change in his behavior in that he was less agitated and more socially and personally integrated. It is interesting to note that, on a second course of treatment, he did not display any further evidence of jaundice.

Patient 22 (J.D'A.) and patient 23 (T.K.) were stopped after 16 and 27 weeks of treatment respectively, having shown very little change. Patient 24 (G.L.), in spite of having showed marked improvement in contrast to his previous status, was graded as unclassified, since he had chlorpromazine for too short a time after his lobotomy to determine whether improvement was the result of drug treatment, lobotomy, or the combination of the two. The patient was maintained on chlorpromazine for seven weeks postoperatively and then discharged from the hospital as improved. It should again be noted at this time that none of the patients in this group had had chlorpromazine prior to lobotomy.

For the sake of further comparisons, these patients were then categorized as to the type of lobotomy, response to lobotomy, complications, and response to drug treatment (Table 3). An over-all study of these data reveals no particular interrelationships between the degree of improvement postlobotomy, complications, and the response to drug treatment. As can be seen, most of the lobotomies were of the Freeman-Watts type, listed in the tables as standard and abbreviated as "Std." It will also be noted in Table 3 that on several of the evaluations of the patient's response to psychosurgery, there is a question mark after "improvement." In such cases, there was a slight change in a patient's status which was maintained for varying periods but not sufficiently long enough to meet the criteria for improvement as set forth by Noyes.[7] Six of the 27 patients in the chlorpromazine group had developed grand mal seizures following lobotomy; two of the patients had seizures before and after lobotomy. The writers are unable to determine definitely from their findings whether or not the use of chlorpromazine had any effect on the frequency of seizures; but it is their clinical impression that it had no effect one way or another.

Table 3. Lobotomy Variables and Response to Chlorpromazine

Patient	Type of Lobotomy	Response to Lobotomy	Complications	Response to Drugs 1st Course	Response to Drugs 2d Course
1. M.L.	Transorbital	Improvement?	None	xxx	
2. J.S.	Std.	No Improvement	None	xxx	xxx
3. I.B.	Std.	No Improvement	None	xxx	
4. R.J.	Std.	Marked Improvement	GM Pre- and Postop.	xx	
5. M.H.	Poppen	No Improvement	GM	xx	
6. M.Ho.	Std.	No Improvement	None	xx	
7. W.T.	*	No Improvement	GM Pre- and Postop.	xx	NC
8. N.W.	Std.	Improvement?	None	xx	
9. J.M.	Std.	Improvement?	None	xx	
10. M.R.	Std.	Marked Improvement	GM	xx	
11. J.D.	Std.	No Improvement	GM	x	
12. A.J.	Std.	Improvement	GM	x	
13. I.V.	Lyerly	Improvement?	None	x	
14. V.S.	Std.	No Improvement	None**	x	
15. T.M.	Std.	No Improvement	None	x	
16. R.S.	Std.	No Improvement	None	x	
17. A.B.	Std.	No Improvement	None	x	
18. I.W.	Lyerly	No Improvement	None	x	
19. H.Br.	Std.	No Improvement	None	NC	
20. W.S.	Lyerly	Improvement?	None	NC	
21. M.B.	***	Improvement?	None	NC	xx
22. J.D'A.	Lyerly	No Improvement	GM	NC	
23. T.K.	Poppen	No Improvement	None	NC	
24. G.L.	Std.	Improvement	GM	Unclassified	
25. T.V.	Std.	No Improvement	None	NC	
26. M.P.	Std.	Improvement	None	NC	
27. S.Be.	Std.?	Improvement?	None	x	

*Left Temporal Lobectomy. **Blinded Self Postoperatively. ***Bilateral Temporal Lobotomy with removal of hippocampus and amygdala. Std.=Standard. GM=Grand mal seizures. xxx=Marked improvement. xx=Moderate improvement. x=Minimal improvement. NC=No change.

Patient 10 (M.R.) showed marked improvement as a result of her lobotomy, but after a year or so regressed rather markedly. When placed on chlorpromazine, she again made a good response. Another case illustrating this same type of over-all response is Patient 4 (R.J.) who initially displayed marked improvement following lobotomy, later regressed, and then responded very well to treatment with chlorpromazine. Although the writers' observations in this respect are rather limited, it is their hypothesis that a patient who shows a marked improvement after lobotomy and

then regresses should do well on treatment with an ataractic drug. The converse of this does not appear to hold—that is, that a patient who shows no improvement after lobotomy should show no improvement to drug treatment—since Patient 1 (M.L.), Patient 2 (J.S.) and Patient 3 (I.B.), who displayed questionable or no improvement with psychosurgery, responded dramatically to drug treatment. It was also the writers' impression that lobotomized patients who display the most affect also do best on drug treatment.

The next largest group of lobotomized patients studied comprise 12 cases treated with reserpine only. The data were assembled into the same categories as in the two former tables. In Table 4, presenting biographical and treatment data and the response to reserpine, one observes the lack of specific relationships in the factors reported. It should be noted here that no patients in this group obtained a degree of improvement which could be scored as xxx or marked improvement.

Table 4. Biographical and Treatment Variables and Response to Reserpine

Patient	Age at First Hospitalization at SGSH	Age Lobotomized	Age Drug Treatment Started	Duration of Treatment (in wks.) as of April 1956	Response to Drugs 1st Course	2d Course
1. D.Wh.	33	39	40	38	xx	
2. H.Wi.	27	47	50	41	xx	
3. H.Ha.	36	40	41	33	x	
4. C.Bu.	26	33	41	42	x	
5. L.Hi.	26	27	29	46	x	
6. H.Mo.	26	28	37	42	x	
7. I.Ol.	34	56	62	41	x	
8. F.Ro.	35	38	46	22	x	
9. M.Re.	19	23	31	35	NC	
10. O.Bi.	36	49	51	29	NC	
11. H.Si.	28	37	43	48	NC	
12. S.Ba.	33	34	41	46	NC	

xx=Moderate improvement. x=Minimal improvement. NC=No change.

In Table 5, showing the relationship between lobotomy variables and response to reserpine, no patient in the group could be considered as having shown a marked improvement as an initial response to psychosurgery. However, Patient 1 (D.Wh.) and Patient 2 (H.Wi.), who initially displayed improvement and regressed, displayed a moderate response to treatment with reserpine. No pa-

tient in this group previously rated as not improved as a result of lobotomy showed a moderate or marked response to treatment with reserpine. Since the sample consists of only 12 patients, the significance of this last observation is not exactly clear. Four out of the 12 cases developed seizures postoperatively. No statement can be made from the findings as to whether or not the administration of reserpine affected the frequencies of the patients' seizures in any way. As a final note on this table, it might be observed that Patient 12 (S.Ba.) had two transorbital lobotomies with no improvement and showed no response to drug treatment.

Table 5. Lobotomy Variables and Response to Reserpine

Patient	Type of Lobotomy	Response to Lobotomy	Complications	Response to Drug	
				1st Course	2d Course
1. D.Wh.	Std.	Improvement	GM	xx	
2. H.Wi.	Std.	Improvement?	None	xx	
3. H.Ha.	Std.	No improvement	None	x	
4. C.Bu.	Poppen	No improvement	None	x	
5. L.Hi.	Std.	No improvement	GM	x	
6. H.Mo.	Poppen	Improvement?	GM	x	
7. I.Ol.	Std.	No improvement	None	x	
8. F.Ro.	Std.	Improvement?	None	x	
9. M.Re.	Lyerly	Improvement	None	NC	
10. O.Bi.	Std.	Improvement?	GM	NC	
11. H.Si.	Std.	No improvement	None	NC	
12. S.Ba.	*	No improvement			
	**	Worse	None	NC	

*Transorbital, November 1948.

**Transorbital, April 1949.

Std.=Standard. GM=Grand mal seizures. xx=Moderate improvement. x=Minimal improvement. NC=No change.

The last two groups of lobotomized patients who received drug treatment postoperatively were those who had received alternate courses of chlorpromazine and reserpine. Seven patients received first chlorpromazine, then reserpine (Table 6). As can be seen from Table 6, little relationship can be noted between the degrees of response to lobotomy and response to the respective drugs. Patient 6 (H.Har.) subsequently died of a cerebral hemorrhage (unrelated to reserpine), and permission for autopsy could not be obtained.

Table 6. Postoperative Drug Reaction of Patients Receiving First Chlorpromazine, Then Reserpine

Patient	Type of Lobotomy	Response to Lobotomy	Response to Chlorpromazine	Response to Reserpine
1. M.Cos.	*	No improvement	xxx	Maintained
2. C.New.	Std.	No improvement	xx	Regressed
3. V.Bur.	Std.	No improvement	xx—Regressed	xx
4. E.Med.	Std.	No improvement	xx	Maintained
5. L.Pau.	Std.	Improvement	NC	NC
6. H.Har.	Lyerly	Improvement?	W	x
7. E.Gee.	Std.	Improvement	(too brief)	x

*Unilateral right amygdalectomy (1950). xxx=Marked improvement. xx=Moderate improvement. x=Minimal improvement. NC=No change. W=Worse.

In a group composed of three postlobotomized patients who first received reserpine then chlorpromazine (Table 7), there are again some interesting contrasts. Patient 1 (H.Mor.) did better on chlorpromazine than on reserpine; later on, when placed on a second course of reserpine, she regressed. The second patient (C. Bie.), while showing no response to reserpine, seemed to get worse on chlorpromazine. The significance and implication of these observations is again restricted by the extremely small sample.

A single patient (H.Dow.) was tried on a combination of reserpine and chlorpromazine because of a hypertensive condition. This patient had had a questionable improvement with a standard lobotomy, and a minimal improvement (x) was noted with her combination drug treatment.

Table 7. Postlobotomy Patients Who Received First Reserpine, Then Chlorpromazine

Patient	Type of Lobotomy	Response to Lobotomy	Response to Reserpine	Response to Chlorpromazine	Remarks
1. H.Mor.	Std.	No Improvement	x	xx	Regressed on 2d course of reserpine
2. C.Bie.	Std.	Improvement?	NC	W	
3. H.Mo.	*	No Improvement	NC	x	

*Bilateral temporal lobotomy with removal of hippocampus and amygdala (1949). This was followed a short time later with a Freeman-Watts type of lobotomy. xx=Moderate improvement. x=Minimal improvement. NC=No change. W=Worse.

Three patients receiving chlorpromazine or reserpine before and after lobotomy (Table 8) failed to show any appreciable response to either treatment. All were lobotomized by the Freeman-Watts technique and after a short interval were placed on chlorpromazine. Patient 1 (J.H.) displayed the best response in this group, while the others showed no particular change. The rationale for the brief interval between lobotomy and the institution of drug therapy was based on the impression that a combination of these treatment procedures might be more effective than either one alone. As noted previously, Patient 24 (G.L.), in the first group of 27 chlorpromazine patients, received chlorpromazine shortly after lobotomy and showed enough improvement to leave the hospital. As in the case of Patient 24, the effect of drug treatment on Patient 1 (J.H.) could not be rated, since, again, the interval between the lobotomy and the institution of drug treatment was so brief.

In order to gain further insight into the therapeutic effects of a combined drug-lobotomy treatment, a series of cases who were treated with the ataractic drugs prior to surgery is now being accumulated. With this group, postlobotomy treatment with the ataractic drugs will be delayed to allow observers to follow the patients' courses for several months following their lobotomies. After that, drug treatment will again be instituted, and comparisons of treatment results made.

Table 8. Treatment Variables of Chlorpromazine or Reserpine Before-and-After-Lobotomy Group

Patient	Drug	Av. Dose (mg.)	Response	Intervals*	Drug	Av. Dose (mg.)	Response
1. J.H.	Chlorpromazine-8 weeks.	300	NC	3 wks.	Chlorpromazine-18 weeks.	150	xx**
2. E.S.	Chlorpromazine-16 weeks. Reserpine-2 wks.	100	NC	12 wks.	Chlorpromazine-8 weeks.	300	NC
3. J.B.	Chlorpromazine-38 weeks.	200	x		Chlorpromazine-7 weeks.	150	x
	Reserpine-18 wks.	9.0	NC	1 wk.			

*Interval between lobotomy and institution of postoperative drug treatment.

**Discharged 35 weeks postoperatively. xx=Moderate improvement. x=Minimal improvement. NC=No change.

As the present study progressed, a question arose regarding the difference in response to ataractic drug treatment of chronically hospitalized schizophrenic patients and lobotomized patients. The ranges of improvement noted in chronically hospitalized schizophrenic patients receiving chlorpromazine and reserpine in a previous study at this hospital,[8] and the results of similar studies in the literature—which were reviewed at that time—are shown in Table 9. In this table, also, are the results of the present study on lobotomized patients so that a comparison can be made. It should be observed that with these two groups of patients there is again a difference in positive treatment results in favor of chlorpromazine. It is also evident that more favorable results with both drugs were obtained on the nonlobotomized sample of schizophrenic patients. Whether those in the lobotomy sample would have responded more favorably had they not been lobotomized is a question under further investigation at this hospital, utilizing lobotomy patients who failed to respond to drug therapy prior to their lobotomies.

Hypothesizing that the differentiation of groups according to reaction to drugs is a significant one, those groups resulting from such a differentiation are now being studied most intensively by means of psychological tests and personality surveys. This is being done by Lorr's *Multidimensional Scale for Rating Psychiatric Patients*,[9] carried on at monthly intervals by the same observers as in the present paper. Where possible, Rorschach testing is being carried out, and an analysis of the data is being made by use of the Q-technique, as originally reported by Stevenson[10] and utilized by Beck.[11] These observations will be the basis of a subsequent report.

Table 9. The Response of Chronically Hospitalized Schizophrenic Patients and Lobotomized Patients Treated with Chlorpromazine and Reserpine

	Chlorpromazine				Reserpine			
	Nonlobotomized		Lobotomized		Nonlobotomized		Lobotomized	
Response	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Marked Improvement ...	12	22	6	11	4	36	0	0
Moderate Improvement ..	10	40	25	31	19	40	16	27
Slight Improvement	26	45	33	55	20	38	36	50
No Change	10	33	6	25	14	38	33	35

Discussion

A group of lobotomized patients who had responded poorly to lobotomy and who remained chronically hospitalized seemed like natural candidates for a study dealing with the effects of treatment by chlorpromazine and reserpine. For some reason in these cases, the severance of the fibers between the thalamus and the frontal lobe of the brain did not alter the affective responses, so that tension continued to build up with the subsidence of the regressive behavior the patient had displayed before lobotomy. Simultaneous with this effect was the effect caused by the administration of drugs considered to be acting essentially on the diencephalic area. As can be seen from the results of this present research, some of the patients responded to this additional treatment. To understand more clearly the physiological, as well as the psychological, mechanisms behind the action of these drugs, the available literature on this subject was reviewed.

Bein[12] felt that the action of reserpine was primarily related to a reduction of activity in the sympathetic regulation centers. Schneider,[13] on the basis of further experimental evidence, felt that the central sympathetic depressant of reserpine seemed not to be due to a direct depression of central sympathetic structures, but rather to a blocking or inhibition of afferent impulses which activate these centers under normal conditions. Although the main effects of reserpine seemed to be restricted to autonomic functions, other parts of the central nervous system are also affected by the drug. Himwich and Rinaldi[14] have pointed out the stimulating effect of reserpine on the recticular formation in the brain stem. Furthermore, clinical reports indicate that patients under prolonged treatment with large doses of reserpine show signs of Parkinson's disease (Barsa and Kline[5]), which also suggests involvement of functions indirectly related to the autonomic nervous system. Schneider,[13] in an attempt to correlate all existing information on the subject, tried to develop a more comprehensive working hypothesis as to the action of reserpine. He stated:

> ... from the basic work of Bard, and of Cannon and Britton, it is generally known that removal of the cerebral cortex causes a state of sham rage which is characterized by general excitement of the animal... According to Ranson and Magoun, this phenomenon is due to the removal of the inhibitory function of the cortex on the brain stem, especially of the diencephalic area. When cats in sham rage were given reserpine the

rage picture was antagonized. Nevertheless, the full effect of reserpine activity could not be obtained in these decerebrated animals (Schneider). The presence of the cortex apparently is necessary to produce the characteristic effect of reserpine. Since the pharmacodynamic effects of reserpine are in direct contrast to the findings in sham rage as far as autonomic functions are concerned, one might postulate that reserpine causes an increase of cortical inhibition on diencephalic structures (with a resulting state of quietude). Our most recent findings of facilitatory effects of reserpine on synaptic transmission certainly would fit into this working hypothesis. Parasympathetic predominance associated with inhibition of afferent impulses would be caused by the facilitation of inhibitory cortical influences. This concept would also permit explanations for other phenomena of reserpine which are not necessarily linked to the central autonomic regulation.

When chlorpromazine is compared with reserpine, although the accumulated experimental evidence indicates the site of action of both drugs is in the diencephalon, there are many differences in effect noted. Courvoisier,[15] in reviewing the differences says:

... (1) the sensitivity of animal species to drugs is very different. (2) Installation, intensity and duration of action are also practically opposed. Chlorpromazine is a compound having a rapid action proportionate to dosage. Reserpine, on the contrary, is not very manageable in the animal, because of its low solubility, which results in a long period of installation. (3) While reserpine in the animal produces certain potentiation of narcosis, it is interesting to note that it opposes the analgesic effects of morphine in contrast with chlorpromazine. (4) Contrary to chlorpromazine, reserpine is neither sympathicolytic nor parasympathicolytic.

Clinically there have been differences noted in the treatment results when similar groups of patients have been compared as to their response to the two drugs.[8] In the present study, this difference is again noted in the comparison of the patients in both groups when evaluated in terms of a marked response (Table 9).

Courvoisier,[15] citing the neurophysiological experiments carried out by Das, Dasgupta, and Werner to elucidate further the action of chlorpromazine, summarizes their findings:

... (1) Chlorpromazine inhibits motor activity provoked by cortical stimulation and suppresses changes in posture caused by stimulation of the cerebellar cortex, of the cerebellar nuclei, and of the reticular formation. (2) In the absence of central factors facilitating reaction from the spinal cord, its inhibiting effect on the cord's activity is much less pronounced. (3) In decorticated cats, chlorpromazine in low dosage specifically inhibits tension reactions caused by electric stimulation of sensitive

regions of the hypothalamus and mesencephalon, as well as the stimulation of the tensor reflex of the sciatic nerve. (4) In thalamic or diencephalic animals, which present characteristic reflexes for the evaluation of the efficacy of substances with a central action, Werner showed that very low doses of chlorpromazine can produce a considerable and persistent reduction of the tonus of decerebration.

Martí-Ibañez and Sackler et al.[16] have postulated that by depressing the autonomic nervous system and interfering with the synaptic transmission of excessive psychomotor excitation between the cortical areas and the diencephalon, chlorpromazine tranquilizes without producing narcosis, coma or amnesia. However, Kurland,[17] in a study of aged patients with a chronic brain syndrome, obtained an impression that the greater the degree of organic brain damage suspected, the less responsive to chlorpromazine the patient was. Another interesting observation in the present group of lobotomized patients treated with the drugs has been that no Parkinsonian reactions have been observed, even though Parkinsonian reactions have been noted in nonlobotomized patients on similar dosages.

It is the impression of the present investigators from the laboratory findings cited and from the clinical experiences gained in the production of this paper, that there seems to be developing the long-sought-after pharmacological bridge between the functioning of the central nervous system on the one hand and the psychodynamics of the patient on the other. It is also felt that, as further similar investigations continue, a greater insight will be gained into all those physiological and psychological factors relating to the effectiveness of drug therapy.

Summary and Conclusion

A group of 55 chronically hospitalized, lobotomized schizophrenic patients were evaluated as to their response to chlorpromazine and reserpine. Of the 27 patients receiving only chlorpromazine, three patients displayed *Marked Improvement;* seven, *Moderate Improvement;* nine, *Minimal Improvement;* and seven, *No Change.* Of the 12 patients receiving only reserpine, none showed *Marked Improvement;* two showed *Moderate Improvement;* six, *Minimal Improvement;* and four showed *No Change.* From these results it would appear that chlorpromazine seems somewhat more effec-

tive than reserpine in the treatment of lobotomized schizophrenic patients.

The remaining 16 patients comprising the sample population for the study received varying combinations of chlorpromazine and reserpine. Although the numbers in each of the drug groupings were relatively small, certain observations were made and hypotheses drawn regarding the variables operating in each case.

Drug treatment results on chronically hospitalized, schizophrenic patients were presented together with results on lobotomized patients, so that comparisons might be made. Although it is evident that chlorpromazine and reserpine have positive therapeutic effects on even lobotomized patients, who in most cases were considered to have poor prognoses, their effects appear to be greater on the nonlobotomized population. This is a subject needing further investigation.

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PSYCHOTHERAPY WITH SEVERELY REGRESSED SCHIZOPHRENICS

Report of Two Cases

BY ANTONIO J. FERREIRA, M.D.

The problem of psychotherapy with schizophrenics—perhaps of psychotherapy in general—continues to offer the challenging quality of an unsolved riddle. Into its dark corners, multicolored lights were shed by the pioneering works of Harry Stack Sullivan[1] and Federn,[2] and more recently, of Frieda Fromm-Reichmann,[3] Rosen,[4] Sechehaye,[5, 6] Eissler,[7] and a few others. With the freshness of their approaches, the boldness of their concepts, the lucidity and depth of their observations, they opened new horizons to psychiatry and offered new hopes to the schizophrenic.

Reports of successful psychotherapeutic experiences with schizophrenics have appeared with increasing frequency in the literature. We are now at a point where, beyond "simplistic" and pseudoscientific outcries of "spontaneous remission," it has become an observable possibility to attain the "recovery" and/or "cure" of psychotics by means of psychotherapy—notwithstanding our difficulties, even inabilities, to answer the fundamental questions of "how" and "why."

A report is presented in this paper of two cases of psychotherapy with schizophrenics classified as catatonics. These two patients had many features in common. They were young (aged 19 and 20), had been hospitalized for many months, and presented unchanging pictures of chronic and profound psychosis that did not respond to somatic therapies. They had both had large amounts of EST and insulin coma treatment and were being considered for psychosurgery. Their psychotic syndrome could well be labeled chronic catatonia. They were mute, extremely negativistic and withdrawn, neglectful of their appearances, and were marked feeding problems. They exhibited cerea flexibilitas, and would be observed motionless on the ward, staring into space with expressionless facial masks.

They both responded favorably to psychotherapy. That the acutely ill or even the "deteriorated" schizophrenic is neither inaccessible to communication nor unresponsive to human relationships and to psychotherapy—is a fact that, at the present time, should require no further illustration, much less demonstration.

The fact, however, has not been universally accepted and remains a controversial point that sparkles many a psychiatric meeting. In the estimation of some workers, psychotherapeutic failures have far exceeded the successes. This is a statement that deserves inquiry. In the writer's opinion, psychotherapeutic failures with psychotics usually result from shortcomings in the therapist or in the limitations of the setting in which he labors. Many therapists do not even attempt psychotherapy with psychotics, or, if and when they do, they unwittingly bring into their therapeutic endeavors the very seeds of failure.

The schizophrenic makes overwhelming emotional demands that many a therapist cannot meet. These demands are codified in an unusual system of communication which adds more difficulties to the establishment of effective relationships. To use radio-communication terminology, it could be said that psychotics find it "safer" to emit signals of unusual wave length, for which therapists often lack an appropriate receiver. The distorted messages of the schizophrenic are lost, or the therapist finds these messages so disturbing that for the sake of his own emotional homeostasis he will block them out, and, utilizing perceptual defenses, will let them go unnoticed.

The emotional relationship with schizophrenics continues to defy an adequate conceptualization, and its basic therapeutic principles have remained only vague and elusive formulations. In answer to the "hows" and "whys" of therapeutic success with psychotics, conceptual constructs have been attempted, such as "direct analysis" (Rosen) and "symbolic realization" (Sechehaye), among others. These insightful contributions, made by indubitably successful therapists, are to be understood only as fragmentary (though labeled and defined) aspects of a certain patient-therapist relationship.

Psychotherapy—be it with psychotics, psychoneurotics, or "borderline" cases—is a relationship between two or more human beings in a perpetual and continuous interchange. It is a multileveled total of transactions that cannot, with impunity, be broken down. It is a dynamic Gestalt where little significance or meaning can be ascribed to the small parts into which one arbitrarily breaks it. The process of dissecting the therapeutic relationship always does violence to the wholeness of the situation; and such an arbitrary dissection or analysis, though at times necessary, can only

leave us with out-of-context and isolated pieces, hardly useful for synthesis.

Gertrud Schwing[8] comes, perhaps, closer than anyone else to the formulation of a basic principle of psychotherapy with schizophrenics. She labels it "motherliness," a concept which, in its simple complexity, affords us at least a partial understanding of the dynamic force in therapy, and in a global manner answers some of the "hows" and "whys" of this type of relationship. Her concept points out that it is in the area of the mother-child relationship that we are to seek the answer to our quest. Studies of mother-child relationships have already brought out promising results (Spitz[9, 10, 11]). Brought into fruition, a greater understanding of that basic type of relationship will not only enlighten our understanding of the psychopathology of schizophrenics but will also equip us with a conceptual framework within which therapeutic success and failure with psychotics may become comprehensible.

In the two cases that follow, the "same" therapist (two years apart) treats two "similar" patients. The relationships established bring into focus what has been often said but not so often understood: that in therapy the important lines of communication between patient and therapist are mostly nonverbal. These two patients were mute at the start of therapy. To the extent that the nonverbal can be verbalized, an account follows of the highlights of the therapeutic relationships. It is hoped that the reader will be able to glue together those fragmentary pieces and complete a Gestalt that in some useful way will resemble the psychotherapeutic process from which they were extracted.

Case 1

C. E., an unmarried girl of 19, was the second of seven children. She was never employed; and she is said to have been always shy, moody and seclusive. In May 1951, she began displaying overt psychotic symptoms: laughing and crying spells, visual hallucinations, fear of cups and doors. She thought she was walking upside down, refused food, and finally became mute. She was admitted to a county hospital in New Jersey in June 1951, diagnosed schizophrenia, catatonic type, and a month later was transferred to New Jersey State Hospital, Trenton, where she was given the same diagnosis.

Following admission, her ward behavior was characterized by a very negativistic attitude, profound psychomotor retardation and apathy with

cerea flexibilitas, refusal to eat, and a tendency toward marked untidiness. In spite of a course of insulin coma treatment and several series of EST, she failed to show any improvement, remaining untidy, very negativistic and mute. She would stay immobile for hours, and become a very serious feeding problem that frequently required tube-feeding.

It was in the beginning of February 1952 that I first saw her. While making rounds on a chronic ward, my attention was called to this patient and to the feeding problem that she represented. Disheveled, in a waxy immobility, she sat in a chair, aloof, staring fixedly into space while a tray of food was rapidly getting cold on her lap. I sat by her side and gently inquired as to why she wouldn't eat. She gave me a slow-motioned glance but remained immobile. I began talking about her food, that it would get cold while she, probably hungry and thirsty, was afraid to touch it. I continued: that I wouldn't let her be thirsty or die, that I would feed her myself. I raised a glass of milk to her half-open lips, and continued talking in a soft and low tone of voice, tender and warm as if talking to a baby. "Come on... it's milk... so good, so white, so fresh... gee! it's good milk... it's *my* milk... I'll give it to you." She looked at me with a somewhat curious expression, a quasi smile on her immobile lips, a spark of light in her eyes. Slowly she reached for the glass. I commented: "I know you can drink it by yourself," and relinquished the glass to her. She took a few sips, while I kept remarking about the "freshness" of the milk and the pleasant sensation of drinking it. I spoon-fed her some food. She took over slowly—more milk, then more food. It took her about half an hour to eat half of her food and drink a glass of milk. At that point, her negativistic attitude became more pronounced again, and, without the least insistence, I left her with a smile and the promise of returning the next day to see her.

I did return the next day and every day thereafter, including most Saturdays and Sundays. She would always be in the same corner of the ward, in the same chair, in the same body posture. As I would approach her and sit by her side, it would seem as though time had not passed, as if everything was as I had left it, untouched and unchanged, in temporal (and emotional) continuity.

I would greet her in a nonchalant but warm manner. I would talk directly to her almost constantly. Facing her, smilingly warm, I would intrude on her silence and mutism with many statements and questions for which I would then verbalize the follow-up and answers. "You always sit in the same chair? I guess you like this chair better... makes you feel it is *your* chair... do you? Oh, I know you won't tell me that. ... You don't have to ... but I wonder how lonely it must make you feel to have only one chair to sit on... only one chair that *you* want, that is..."

A few days after the beginning of therapy, the patient ceased to be a feeding problem. I continued to see her daily for periods of between half an hour to one and one-half hours.

Her waxy facies and posture began giving minimal signs of inner life, giving out signals and clues which I acknowledged and utilized. By then, I became aware that as an interview would come to an end and I would announce my intentions of leaving, she would slowly (*very* slowly) turn her head and eyes away from me and rigidly maintain a "no-hear, no-see" attitude.

The meaning of her gesture was obvious: a denial, a clumsy and primitive defense against acknowledging my departure and the end of the interview, which to her meant not only momentary rejection but the fear of again being left alone, perhaps forever, if I were not to return. Interpretation of her reactions and my reassurances that I would come back were in vain. Although, for a period already over three weeks, I had never failed to return to see her, her "reality," or better, the fears of her past experiences would "tell her" differently. This therapeutic hurdle was solved with my introduction of a prop. I began leaving her a piece of paper with these words written on the spot: "I'll be back tomorrow, Dr. Ferreira." Her attitude toward my leaving the sessions changed considerably. She became more and more confident that I would return and began accepting my temporary departure much better. Meanwhile, she kept those little pieces of paper with her—all of them, religiously.

In the fourth week of therapy, emotional reactions began to show in her countenance, and occasionally she would answer some of my questions with nods of her head. In this way, I ascertained that she was hallucinating. She nodded her head affirmatively when I stated (interpreting her silence): "Voices forbid you from talking?" Then I embarked upon a line of dramatization. In a soft quasi-intimate voice I stated to her: "You and I will fight those voices." Whereupon I addressed myself to the empty corner of the room and, with shouts of rage, I blasted the air and those invisible voices: "Go away, don't bother Cathy! Go away!" The patient paid unusual and dramatic attention to my attitude, and later on began responding to such antics with loud outbursts of laughter. This was the first time the ward personnel and I had heard her laughing.

We were at the beginning of the third month of therapy. Perusing the fragmentary information contained in her hospital record, I learned that the patient, who at home and in the hospital had always been called by the nickname of "Cathy," would actually prefer to be called Catherine. This, the patient confirmed by a strongly positive eye glance and a feeble nodding of her head. Another prop was then introduced. I gave her an inexpensive rag doll, and, "We baptize her Cathy." From here on a great deal of my talk would refer to the relationship between Catherine and

Cathy. "How are you today?... And how is Cathy?... You have mixed feelings about her... Oh! I know Cathy is only a rag doll... and she doesn't talk or eat or anything... she is so small she can't talk..."

It became noticeable that she preferred to keep her doll by her bedside and never brought it to the interview. I felt that this could be constructively used in therapy as a means of touching upon and interpreting her emotional attitudes toward her childhood experiences as broadly symbolized in "Cathy," the rag doll. I pointed out: "You don't want to lose her (the doll), but at the same time you don't want her (Cathy) to come and mix you up again."

By this time, the patient began moving more freely. On her own, she started going into other parts of the ward, having lost any visible preference for her former corner and chair. Occasionally she would want to shake hands with me at the end of the interview.

The "voices" ceased to be heard. She gained a new interest in her surroundings. She began greeting my arrival with a broad smile, and with a half-cocked, mocking but still warm expression, accepting my departure. She was improving considerably, though still mute. Frequently she was giving a helping hand in the daily chores of the ward personnel. She seemed to enjoy her newly-acquired capacities and functions, and endure frustration on a more realistic level. One day, at the end of an interview, I questioned whether "you still feel I won't return? I guess you don't need me to write it down anymore... You now know I will be back tomorrow." Discontinuance of the written notes was agreed upon and well accepted by the patient.

Three months of therapy had gone by when the ward personnel reported to me that she had begun to talk, a few whispered but perfectly audible and meaningful words. But only a week later did she say her first few words to me! From here on, the texture of the therapeutic interview appreciably changed: The patient (as Catherine, not Cathy) and I were now verbally interchanging at an almost adult level. Smoothly and gradually, a change had taken place, leading up to my handling of the interview in a progressively more mature and socially acceptable manner.

She seemed to need me less as she began moving into her environment with a new confidence. Her speech became more spontaneous, and she began to involve herself more in the ward activities and with other patients. She particularly enjoyed going outdoors to the hospital canteen to, as she put it, "see and hear all the other people." She looked as if she could now improve by herself, indicating a need for independence which I furthered by shortening my visits and later (with her consent and agreement) by reducing them to three or four times a week.

During later interviews, I still carried the brunt of seeing to it that the flow of communication was kept open. We talked mostly about her

daily activities, present feelings, anxieties or fears more directly connected with her hospital situation. Only rarely would the talk digress into her basic difficulties. Of her past, the patient seemed to want to emphasize the positive, with only fleeting (mostly nonverbal) comments about its negative aspects. She showed me pictures of some of her sisters and brothers, and of her mother. On one occasion she wanted me to read, and finally decided to read to me, a letter from her mother.

With her improvement continuing at a steady pace (six months after therapy started), she was discharged from the hospital to her parents, as recovered from her psychosis.

In one of the last interviews, she requested that I write a few words in a diary-like book that she had. I acceded by writing a few conventional wishes of good luck. But, and for the first time with her, I felt hesitant, unusually anxious and lacking spontaneity. It is no wonder, then, that I have not been able to recall exactly what I did write.

A year after her discharge from the hospital, a follow-up by an outside observer reported that the patient was doing well, living with her parents, and gainfully employed full time.

Case 2

F. C., was a single man of 20. His mother had been committed to a state hospital when he was only two years old. He was brought up by his only sister, nine years older. His father was born in Italy and, in his "country ways," didn't understand the children. The patient had many difficulties in adjusting. He performed below average in school, never dated or had a girl. When under stress, he would "keep things to himself." Sometimes he would lie down wherever he might be, and remain immobile as if asleep. He entered the army in January 1953 and adjusted well for about four months. In May 1953, his behavior became unusual and inappropriate: He was mute, refused to eat, appeared to be far away in a fog. He became suspicious occasionally and was heard saying that people expected him to kill himself. Transferred to Letterman Army Hospital, he was diagnosed catatonic schizophrenic and given several courses of EST and insulin (from May 1953 to January 1954, he received 62 insulin coma treatments and 112 EST treatments). No appreciable improvement occurred. He remained generally mute and negativistic, would do little for himself, and at times would become impulsively disturbed and assaultive. In February 1954, he was transferred to the VA Hospital, Palo Alto, Calif., where he continued to show no signs of improvement, remaining mute, negativistic, with cerea flexibilitas, and occasional incontinence.

When I first saw the patient, in the beginning of March 1954, he was in a ward for the chronically disturbed. He exhibited a marked psychomotor retardation. His face was expressionless and masklike, and his pos-

ture waxy. Cerea flexibilitas could be easily observed. The patient was by then totally mute, extremely negativistic, and aloof. He had just been recommended for psychosurgery. He seemed to ignore my presence, though he made a feeble, almost imperceptible attempt to shake (or touch) the hand that was being offered to him. I verbalized wishes to help him and promised to return daily to see him. This provoked no response.

After that initial contact, I began seeing him daily in an interviewing room to which, very slowly and draggingly, he would accompany me. In a soft, warm, reassuring tone of voice, I engaged in an almost continuous one-sided conversation. I put questions to which I would then provide the answers. In the flow of my talk I would make frequent references to the patient's loneliness and unhappiness, occasionally verbalizing his wish to be "a little baby who can't even talk yet." He remained aloof, glassy-eyed, and distant most of the time. Occasionally, he would slowly look around with a fearful and suspicious expression. I emphatically commented: "No, there are no spies here... besides, I won't let anyone spy on you."

During the second week of therapy, sometimes rather suddenly, the patient would bend forward and downward with his arms and head hanging limp. On a hunch, I remarked: "It's all right to have a hard on, no need to hide." This brought a quick response from the patient who, blushing and embarrassed (his first show of emotion), straightened up and smiled with obvious relief.

He began accepting my offers of cigarettes. The act of accepting a cigarette brought out some patterns very characteristic of him. He would look at the cigarette for a long time and slowly stretch his hand toward it. But his hand would stand still in mid-motion, many times, as if glued to the air, or retract quickly and briskly as if in avoidance of sudden danger. This ambivalence in motion exhibited itself in several forms. When about to sit in a chair, he would stop half-way, in a precarious equilibrium until my remark, "Mother wouldn't mind your sitting down," would seem to solve the conflict. Then he would sit down, and, on his face, an awkward, infantile smile would portray a brief, fleeting moment of relaxation and happiness.

In the third week of therapy on an occasion when I had again emphasized my wish to help him, the patient behaved in an unusual way. He raised his head and looked at me with an intense interest. He walked slowly toward me and brought his face to about an inch from mine, staring intensely and piercingly into my eyes. I commented: "As you *see*, I don't lie." As I left the room that day, I waved to him as I had done on previous occasions. For the first time, he waved back.

A new alertness in the patient became unmistakable. With many ups and downs, the hours of therapy accumulated, hours filled with the ex-

pected silences and waxy attitudes, and more and more often with unexpected and active developments. One day while sitting on a bed, the patient unbuttoned his coat and proceeded to undress. Slowly but resolutely he removed his clothes, watching me attentively and cautiously, hesitating here and there as if asking permission to go on. I verbalized for the patient: "You want to go to bed but are afraid I won't let you or that I'll mind... but I don't mind... You want to be a little baby and I want you to be what *you* want to be... I like little babies too... you want to be cuddled, put to sleep." Meanwhile the patient had put himself to bed in a fetus-like position. I tucked the bedclothes for him, touched his head lightly and in a soft, warm voice, remarked: "You feel like being a baby now..." The patient remained quiet, immobile, open-eyed with an almost imperceptible smile of pleasure on his lips. Wishing him "sleep well... I'll see you tomorrow," I tiptoed out of the room.

As the patient had manifested great anxiety (expressed by a sudden increase of his psychomotor retardation) at the end of the interviews, I began leaving him notes that read, "I'll be back tomorrow, Dr. Ferreira." He kept them and eventually accumulated two pockets full of notes—notes which contributed much to his relative acceptance of the temporary rejection that my departures represented.

The patient continued having erections during the interviews. His fear of having an erection gave place to an almost frantic masturbatory activity, the pleasures of which I frequently verbalized for him. At first, he feared reaching an orgasm, but a few days later nothing seemed to interfere with his full enjoyment.

I began bringing milk to the patient and actually "hand-feeding" it to him. He drank it avidly, while, like a nursing baby, his eyes were fixed steadily on my face. On these occasions, I would talk to him in a soft, warm tone of voice, as if talking to a baby who is hungry and becoming happy about being fed and cared for.

The patient began showing unmistakable signs of improvement. One day he took me by the hand and, in his slow-motioned way, walked me through the ward. This became a routine. Hand-in-hand, with the patient leading the direction (and the long stops) all the way, we visited every corner of the ward. He soon began to stop by the nurses' office, and, with a shy but happy smile, stare at the female nurses in ecstatic contemplation.

His show of emotions became more overt, freer, more frequent. He displayed a growing interest in smoking my cigarettes, which were given to him as often as he wished them. Initially, I would give him a lit cigarette but as he improved I gave him unlit ones for which I would hold a match. Lighting his cigarette was at first a major undertaking. As I would strike match after match, the patient, with the cigarette firmly

pressed between his lips, would go through a series of contortions alternately moving toward and away from the light, as if tremendously fearful of fulfilling his, perhaps forbidden, wish to light the cigarette. When he would finally light it he would take quick, short puffs in a marked show of pleasure not exempt from fearful, worrisome looks.

He began taking better care of himself, although his hair still had a most disheveled appearance. It was in the sixth week of therapy that one day I remarked on the messed-up appearance of his hair: "I notice you never fix your hair. . . . Don't you have a comb? . . . What a horrible thing not to have a comb. . . . Why didn't you ask me for a comb? . . . Oh! I forgot, you can't ask. . . . . Here, do you want to use mine?" From my pocket, I produced a comb that I handed to him. He inspected the comb with the curious seriousness of a six-month-old baby; then, glancing at me, broke out in a smile of delight and proceeded to comb his hair in my presence with the awkward clumsiness of a seven-year-old. I let him keep the comb.

He began grooming his hair daily until a few weeks later when something happened. As evidenced by his again disheveled hair, he had lost the comb! When I said, "I guess you lost your comb," he became progressively anxious to the point of profusely urinating in his pants. Only after he perceived that I was in no way angry with him, did his anxiety abate. His wet pants remained, however, as an uncomfortable piece of clothing which he wished to change but didn't dare for fear of leaving me. I solved this problem for him by accompanying him to his bedroom. Once there, and to my surprise, he began hesitating as if reluctant to remove the wet pants in my presence. So I commented: "I guess you don't feel at ease undressing in front of me. . . . I understand that, I'll turn my back to you." To make my intentions more effective, I hid myself behind a large column though leaving part of my body plainly visible to him lest he fear that I had vanished completely from the room. He changed pants very rapidly then and joined me. Later in the day, a ward attendant confirmed my guess: the patient's comb had been lost in the wash.

Two months of therapy had gone by. The patient, though much improved, remained mute. The silences in the hour were filled by my resorting occasionally to storytelling: "The story of a little boy who was so afraid. . . who couldn't talk. . . but who later grew up to be a big and happy boy." The patient responded to these stories with an attitude of profound attention and occasional signs of emotional participation. He began to improve at a faster rate, and in many areas. To the milk I would ordinarily bring him, I added a carton for myself, an action which increased the conventional tones in our relationship. Later, I replaced the milk with orange juice or coke, and as the patient improved, I began to omit the bringing of a beverage.

The patient remained mute until the end of the third month of therapy when he began whispering a few, but audible, words. Milk had been replaced by coke or orange juice. The patient had begun smoking his own cigarettes with no apparent fear involved. Much of his unrealistic psychotic panic had disappeared. His whole demeanor was freer, more stable and appropriate. Unfortunately, at this point, my work at the hospital ended, and therapy had to be discontinued. Nevertheless, the patient's improvement had been so marked that when I left the hospital it seemed justifiable to transfer him to a much better ward.

I had a feeling he never quite believed that I would not return again. After all, we had spent together an average of one to three hours daily (including most week-ends) for a little over three months. Upon my departure, he continued to improve very slowly but steadily. A few months later, we met again briefly in the hospital canteen. He stood there, looking at me in a mixture of happiness, bewilderment and embarrassment. We shook hands, as he mumbled a few low-pitched conventional words. I learned later that he was being allowed ground privileges and that talk of his being discharged was in the air.

Comments

These two cases of psychotherapy with catatonic schizophrenics bring out, the writer hopes, the basic characteristics of his general approach to these patients. He will now attempt, in an impressionistic way, to put across what he considers the basic constituents of that approach.

The therapist brought into the therapy all of his available emotional resources. In and through the multiplicity of interchanges, he gave expression (verbally and/or nonverbally) to his feeling of genuine interest in the patients, a feeling which the stormiest situations did not abate. With a warm devotion and an unhurried confidence, the writer strove to bridge the emotional distance that the patient's psychotic defenses continually threatened to create. The patient and the writer became an emotional unit over which a remote part of the writer's ego remained alert and vigilant. There were, so to speak, two ids (the patient's and the writer's) and one ego. In the process, the writer frequently felt as if his ego-boundaries had expanded, engulfing the totality of the patient in a heightened perception of the whole situation (even of the whole room). Subjectively it was an experience akin, perhaps, to what has been described as "oceanic feelings." As the patient's symptoms would flare in silent, but nonetheless violent, id-storms

—the full range of the therapist's (our) ego-functions would step in to integrate, sift and eventually orient toward reality the flow of blind emotions that characterizes psychosis. In this way, the patient literally "borrowed the therapist's ego strength."

Without hindering, rather utilizing, the spontaneity of "primary processes,"[12] the therapist scrutinized the varied aspects of his own self, in the awareness of their eventual impact on the patient. The therapist tried not to minimize the importance of metacommunication.[13, 14] Each move he made, each phrase he enunciated, each gesture, even each piece of clothing he wore, was looked upon as a potential bridge to uncharted territories in the patient.

The whole initial approach carried an obvious element of intrusion in, and interference with, the patient's psychotic defenses. It disturbed his homeostasis in a way that brought forth a response which marked the beginning of the therapeutic relationship. Behind his mute mask of aloofness and distance, the patient developed strong positive feelings about the writer, a volcano-like transference characterized by an extreme demand for gratification. Within the limits of the setting, the writer attempted to fulfill, or at least partly gratify, most of those infantile and psychotic demands. In symbolism or in reality, he tried to meet the patient's basic needs, regardless of how unrealistic or how inappropriate they were.

The therapist virtually went along with the patient's psychosis. His unreality became the therapist's reality. In the therapist's uninhibited acceptance, the patient found the all-giving, warm, comforting, all-indulgent, omnipotent mother. Here, one is again reminded of Gertrud Schwing's insight, when she emphasized how important it is to surround the patient with "that motherliness which he lacked as a child and which the patient, without knowing it, has searched for all of his life."[8] By means of words ("I like you... I want to help you"), of gestures (handing to the patient one's own cigarette), of deeds (feeding the patient, etc.), the writer not only, mother-like, satisfied many of his infantile cravings, but assisted him to cement the bonds of a relationship upon which reality was to be built. In this context, Spitz's statement that "the nursling's ego is his mother's ego" can, with propriety, be paraphrased—the psychotic's ego is his therapist's ego.

The effectiveness of a mother-like attitude with the psychotic has been observed by several therapists. As verbalized by Hill:

"When we speak of parental love which the child needs, we are talking about something closely related to what has been discussed elsewhere as 'cure' or 'psychotherapy' or treatment of the patient." This observation correlates well with the theory that schizophrenia is primarily rooted in early emotional traumata occurring at the mother-child relationship level. Spitz, in a broad attempt to classify the psychogenic diseases of infancy,[10] speaks of "deficiency experiences" and "psychotoxic experiences" with the mother, concepts which seem to be equally useful in the understanding of the adult schizophrenic. If one regards psychosis as a sort of outgrowth, an effect-at-the-distance of a core of pathology that existed since very early childhood—then, the autistic disturbance in schizophrenia may be looked upon as an expression of "deficiency experiences" with the mother.

Similarly, the schizophrenic's symbiotic needs would have their antecedent in "psychotoxic experiences" suffered in the basic relationship with the mother figure. In this frame of reference, one can see that the schizophrenic will present two concomitant sets of pathologic manifestations: one that comes from the deficient satisfaction of his basic and most primitive needs, and the other that covertly expresses a craving for symbiotic relationships. Underneath a variegated symptomatology, the schizophrenic craves a mother—a mother who, in a symbiotic relationship, will supply the gratification of all of those needs that, so far, have only been deficiently met. By extension, and in accordance with what Mahler had already observed in infantile psychosis,[11] psychotherapy with schizophrenics must be a therapy of replacement and substitution, whereby the therapist endeavors to offer and make available to the patient the type of maternal affective contact that he had longed for since, and been deprived of in, infancy.

As Lidz and Lidz suggest,[16] it seems that the schizophrenic is only capable of close relationships of a symbiotic nature. This conforms well with the observation that when a therapist succeeds in establishing a close relationship with a schizophrenic, the patient will tend to cling to him with all the voracious demands of the newly-born. These demands are strongly colored by their orality. With the writer's two patients, the urgency of their oral demands was an ever-recurring issue. In a therapy of substitution and replacement, the writer symbolically gave them the breast and the milk they craved, quenching their emotional thirst by what-

ever means were available: words, storytelling, cigarettes, milk and other beverages, etc.

The advent of new therapeutic tools frequently beclouds fundamental issues. The gratification of the patient's basic needs at a symbolic or realistic level is an important aspect of therapy. However, giving in itself is not the key to therapeutic success. Giving is only a part, and perhaps a relatively small part, of the whole process of gratifying and fulfilling the basic needs of the patient. In connection with this problem, Sechehaye goes as far as admonishing that "the risk of error is great and may actually prove harmful."[17]

Gifts, as gratifying means, should be utilized with caution. How to give, when to give, what to give, and even why to give are momentous decisions in therapy that can easily overtax the ingenuity and resourcefulness of the unprepared therapist. However, when appropriately and timely fitted into the therapeutic situation, the value of symbolic gifts as therapeutic tools is beyond question. This point is illustrated with Case 1 in the use of a rag doll. The nickname "Cathy" was to that patient an everpresent reminder of her childhood days, whereas "Catherine" stood for adulthood and independence. The rag doll was introduced as a therapeutic tool to objectify, and open avenues of, communication to an important aspect of the patient's emotional conflicts. It should require no elaboration that the gift also had many other symbolic values.

* * *

Another particularly pressing problem in therapy with psychotics is decision-making. Every single moment of therapy is filled with questions that the therapist should and does ask himself: Shall I interpret? If so, at what level? Shall I remain silent? If so, for how long? Shall I introduce a prop? What prop? What is the patient telling me? What am I telling the patient? What is my tone of voice, my choice of words, my body posture telling the patient nonverbally? One knows that the schizophrenic is not likely to welcome a calculated and intellectualized approach and that spontaneity is essential. But, how can one make appropriate decisions and at the same time preserve spontaneity? The answer to this question again implies the necessity of following the patient emotionally at all times. From the multi-leveled feelings that continually go on in the patient and in himself, the therapist's ego,

alert and vigilant, will select the essential elements that are to be co-ordinated and integrated toward a spontaneous response. This capacity to achieve an appropriate spontaneous response is based on what the writer would like to call the *bridge-function* of the therapist's ego, a function similar to, if not akin to, intuition and empathy.

Intuitive processes have been recognized as important in psychotherapy with psychotics. As Searles states, "Only a therapist's intuition can help him to know whether [to satisfy] a patient's request for a concrete gratification." This, once again puts emphasis on the therapist's ability to be with the patient emotionally at practically all times and levels. The process of *being with* the patient is well described by Szalita-Pemow, who says that "the therapist is called upon to relate himself to the patient on two distinctly different levels: feel with him and think about him (apart from the simultaneous introspective process),"[18] and, the writer would like to add, to be able to do this at all times, in full awareness of the perspectives and multidimensions of the therapeutic process. A further clarification of the problem is attained by the concept of empathy. It could be said that a strong capacity to empathize is a vital asset to a successful therapist. Ideally, the empathic awareness of the patient's feelings allows the therapist to choose, from his own personal armamentarium, seemingly appropriate responses. As these responses (verbal and/or nonverbal) are brought forth, the therapist empathically remains with the patient, self-regulating and/or self-correcting these responses (be they "deep" interpretations or "simple" silences) to desired and empathically determined degrees.

Frequently, empathy provides us with the only channel for communication with psychotics, particularly with catatonics. With their mutism and retardation, catatonics offer the therapist only a minimum of signals and feed-back information, a situation where roadblocks to communication have been nearly maximized. Communication, however, does take place. Future studies of the phenomena of intuition, empathy, and of what the writer calls the bridge-function of the ego (probably different aspects of the same process), will likely contribute much to a clarification of the communication aspects in psychotherapy with catatonics.

A psychotherapeutic relationship can be seen as an organism-environment system in which the therapist is the dominant environmental force. It is, of course, an open system wherein an interchange of transactions takes place in a continuous circular process. To the patient, the therapist becomes the central figure, the life-source, the "mother." The therapist fails whenever he refuses to play this role or "does not recognize how tremendously important he is to the patient."[19]

Severely regressed psychotics strongly wish for the constant presence of the therapist, a demand which, of course, is impossible to fulfill. It is desirable, however, that the therapist come as close as possible to the fulfillment of that demand. To the very regressed psychotic, the concept of time is greatly, sometimes totally, distorted. Time is only meaningful when the therapist is present; all the rest is a void, a lonely and empty wait for the therapist to return. The psychotic knows of no week-ends, holidays, vacations, and all the other variations of "time-off" that the therapist allows himself as justification not to visit the patient. In this light, it becomes understandable why the ending of an interview is a particularly stressful moment to the psychotic. He feels rejected, he hates the therapist for it, he fears the therapist will know and return his hate, he fears to be left alone for an interminable number of hours and, most of all, he fears the therapist will never return. With the writer's patients, he met these difficulties with the introduction of a prop. At the end of an interview, he would write and hand to his patients a simple note with the statement, "I'll be back tomorrow, Dr. Ferreira." As already reported, this was very effective. Apparently, in those written notes, the patients saw something more concrete and tangible than just a verbal promise to return. They had, so to speak, "my signed statement." At a deeper level, the significance of these notes should not be overlooked, either. They were a part of the writer—a part that never quite left, that stayed behind, warming the many lonely hours of waiting that went between interviews.

* * *

When we look at psychotherapy not as a static sum of arbitrary cross-sections but as a life process, a dynamic Gestalt in its time-dimension flow, a new aspect of the therapist's over-all attitude comes into focus. Through the psychotherapeutic process, the pa-

tient changes and moves from one level of regression to another, in a flux of emotional tides that bring him closer and closer to the shores of reality. The necessity to follow the patient emotionally in these ups and downs is once again evident. For, as the patient changes, the therapist must change. Preserving the consistency of an over-all attitude, the therapist moves with the patient in the continuum that stretches between psychosis and reality, geared to progressively higher levels of symbolism, conventionality, and social acceptability. This principle is illustrated in the two cases presented here. During the first weeks of therapy, the writer virtually went along with the patient's psychosis, recognizing, accepting and, as much as possible, satisfying the patient's needs, regardless of how unrealistic they were. As the patient improved, the writer's orientation changed concomitantly. Slowly and gradually, he increased the reality-laden overtones, encouraging the patient to utilize his own reacquired ego-functions more and more. In this way, instead of the writer's handing to the patient his own lighted cigarette, he began offering him an unlighted one and much later, slowly encouraged the patient to smoke his own. As another example, instead of bringing milk only for the patient, the writer began bringing milk for both the patient and himself; then much later, the patient having improved to a higher level of symbolic satisfactions and conventional behavior, milk was replaced by orange juice, cokes, etc., beverages which ultimately were entirely omitted. These examples illustrate an extremely important point in therapy: the necessity to adjust one's own approach to the patient's present level of regression, in readiness to modify it plastically, imperceptibly perhaps, but in tune with the patient's change and capacity to adjust.

* * *

Psychotherapy is an emotional interchange, not an intellectual one. It will never be overemphasized that an intellectualized approach is, literally, poison to psychotics. The existence of an anxiety-free and interested therapist who has the ability to spontaneously utilize primary processes in communication—is a *conditio sine qua non* of the whole therapeutic approach. Undoubtedly, in order to meet the sometimes overwhelming demands of the psychotic, "the entire gamut of emotions from hatred to love should be at the psychiatrist's disposal and applied in accordance with the

patient's needs." The therapist's capacity to perceive the patient's emotional turmoil and his ability to communicate verbally and nonverbally to the schizophrenic that he, the therapist, is genuinely interested in the patient's welfare—are the greatest common denominators to any successful therapy with the psychotic. Seemingly, this is what is associated with the concept of mother and what Schwing refers to as "motherliness." Above and beyond all rules, techniques, methods, and schools of therapy—the psychotic patient crowds our hospitals in the lonely wait for the warmth, closeness, healthy interest and respect of another human being. Through the grueling and stormy hours of therapy, the successful therapist is that human being who, beyond intellectualized knowledge, will be capable of maintaining alive and healthy that "motherliness" which the patient has never had and has sought for all his life.

Should future psychiatric endeavor bring more evidence to support these assumptions, our views on the prognosis of schizophrenia will have to undergo a sharp and revolutionary change. For then, we will come to state that, other things being equal, the prognosis of schizophrenia depends more on the therapist than on the patient.

Summary

Two cases of intensive psychotherapy with chronic catatonic schizophrenics are reported. Emphasis is placed on trying to understand its dynamic forces as only parts of a whole situation, of a psychotherapeutic Gestalt. Similarity is shown between the therapist and an all-giving, anxiety-free, omnipotent "mother" who, so to speak, rears the patient from a childlike world (psychosis) into reality.

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RESERPINE, CHLORPROMAZINE AND THE MENTALLY RETARDED*

A Report on 139 Cases

BY HAROLD SCHILLER, M.D.

The effects of reserpine and chlorpromazine on psychotics, especially on chronic "back-ward" patients, have led to inquiry into their possible effects on mentally retarded patients who present problems of management, care and treatment.

This report deals with the empirical use of reserpine, chlorpromazine and the combination of the two in treating 139 mentally retarded patients on the female service of Willowbrook (N.Y.) State School. The aim was to obtain enough improvement in certain patients to make life more tolerable for other patients, for ward personnel and for the individuals themselves. This study covers an 11-month period ending with February 1956.

General Remarks

This inquiry was carried out with limitations which are open to criticism. No laboratory, blood pressure or psychological studies were made. No electro-encephalograms were done to refine diagnoses. No placebo controls were used.

Phenobarbital was discontinued in this group, but patients subject to convulsions were continued on dilantin and/or phenobarbital. There was no change in interpersonal relationships with the personnel, other than the additional attention paid to the patients in giving pills daily; and this is of questionable, if of any, value in the very severely retarded, that is, the idiot and low-grade imbecile groups.

State hospital patients present symptoms, other than behavioral, which can readily be determined more or less objectively to be present or to have diminished or ceased—hallucinations, delusions, depression, mania, catalepsy, verbalization. State school patients present behavior symptoms, and these are viewed more subjectively. How noisy, stubborn, quarrelsome, hyperactive, un-cooperative or vulgar a patient is seen to be, depends on the attendant's and doctor's thresholds of response. To a lesser extent, perception of assaultiveness and self-injury depends on the same factors. Release from the institution cannot be used as a criterion for improvement in this group. Most of the state school patients

*From Willowbrook State School, Staten Island, N. Y.

are still growing up, with changing physiology, and this may affect their response to, or need of, varying drug dosages.

Initially, weight gain with drug medication seemed to be correlated to improvement, but as the study progressed, this was not borne out. Some patients who showed gains were failures, and some with very good responses even lost weight, although most of the patients gained on the drugs. Initial improvement was sometimes seen within 48 hours.

Some patients developed tolerance, which was overcome by increasing the dosages; others, following varying periods of improvement, would revert to their previous behavioral patterns, and this sequence would be repeated after increasing dosage. For these cases, the term "resistance" is used rather than "tolerance," since the end result was always a lack of response to the drug.

Methodology

The first problem to arise was how to score responses. All too often, a patient is described as "just about impossible," not on the basis of long-term behavior, but because of very recent incidents. Originally, therefore, the ward charge on each shift wrote briefly on each patient's behavior, daily. After it was felt that the ward personnel knew what was wanted, a change was made to a 0 to 3+ system of recording behavior. This took less time but became ineffective, for one reason or another, and the final method evolved, which seems the most satisfactory for the purposes of this inquiry, requires the ward charges to write only when an incident or reaction or anything unusual for the patient occurs.

Scoring is on the 0 to 3+ basis, with 0 for failure, 1+ for slight, 2+ for moderate, and 3+ for marked improvement in behavior pattern. The rating of 4+, or excellent, is applied only to patients who no longer show even occasional incidents. Despite the limitations and difficulties, the writer feels the evaluations of the responses are generally valid.

Results were considered only after any continued drowsiness present had subsided. There was no set time for change of dosage, but increase or decrease was determined by the scoring and by the general feeling of doctor and personnel about the way the patient was responding to the drug.

Selection of patients was made by obtaining from each shift a list of patients considered most troublesome and the reasons there-

for. These lists were then reviewed by the doctor and supervisory building personnel. The final list—and the number was increased as more of the drugs became available to the service—contained those patients in whom improvement, if it occurred, would most benefit all the patients on the ward and the ward personnel.

Reserpine

Reserpine was used in 55 patients, ranging from seven to 48 years. There were 20 idiots, 10 low-grade imbeciles, 19 imbeciles and six morons. Forty-three patients were started with a course of 15 injections, usually 2.5 mg., over a period of 24 days, and 3 mg. orally in divided doses daily. Twelve patients were started on oral dosage only, 2 or 3 mg. daily. The highest oral dose used was 9 mg. Maximum response was generally reached, in the injection group, during the second and third weeks after drowsiness ceased, the extremes being one to 28 days. In the group started only on oral treatment, the maximum response usually occurred after 21 days, with a range from 11 to 51 days. Thirty-four patients were treated from four to 11 months; 21 from two to three months.

Minor reactions, usually lasting several days and, except for marked drowsiness, not requiring change of dosage, were seen in some combination in most of the patients. These reactions were drowsiness, flushing, rhinitis, lacrimation, conjunctivitis, drooling, thirst, vomiting, irritability, chills, abdominal pain, diarrhea, headache, facial edema, tremor, and nosebleeds.

Parkinsonism occurred 10 times in nine patients (16 per cent), between the fifth day and sixteenth week of treatment, but usually in the second and third weeks. In six patients, treatment was resumed in a few days without recurrence of symptoms. In one patient symptoms first occurred after three months on 3 mg. daily; the reserpine was resumed in a week; and symptoms recurred after five days; two weeks later, the patient was again placed on the drug and in the following five and one-half months there was no suggestion of parkinsonism. In two of these parkinsonian patients, resumption of reserpine was no longer successful in modifying behavior.

An 11-year-old imbecile showed a toxic confusional state on the sixteenth and seventeenth day of injections, and all treatment

was stopped. This state continued for three more days; and then she became a "model" patient for about three weeks, finally ending up as her usual self—assaultive and destructive. Treatment was resumed; within a few days the patient was markedly improved in her behavior, and she remained so for eight months.

Of the 11 convulsion patients, four had more seizures, three fewer, and four showed no change in frequency.

Twelve patients seemed to develop resistance or tolerance to reserpine. This occurred after two to nine months of treatment. In only four cases, did increasing the dosage prove completely satisfactory.

Table 1 gives diagnosis and age distribution for these patients.

Table 1. Reserpine

Diagnosis	No. Pts.	Age Range Yrs.	Age Group Yrs. 7-9	10-12	13-19	20-48
Familial	12	7-48	4	5	2	1
Epilepsy	8	8-45	1	4		3
Congenital lues ...	1	24				1
Pertussis	1	9	1			
Influenzal meningitis	1	8	1			
Mongolism	1	15			1	
Organic nervous disease, (Type unk.)	1	23				1
C.C.S.I.P.*	1	10		1		
Birth trauma	1	7	1			
Undifferentiated ..	28	8-40	7	8	5	8
Total	55	7-48	15	18	8	14

*Congenital cerebral spastic infantile paralysis.

Table 2 gives the behavioral indications for treatment, the number of patients and the number of failures. Many of these patients also were hyperactive, noisy, destructive, had tantrums, were stubborn, broke windows, or liked to be nude. Destructive refers to destruction of clothing, linen, and camisoles.

The 21 failures ranged from seven to 33 years old; 47 per cent of the idiots and low-grade imbeciles, 31 per cent of the imbeciles, and 17 per cent of the morons were failures. Seven of the failures seemed to be due to the development of resistance to reserpine, including the two biters, one noisy patient and one hyperactive patient who previously had shown 2+ and 3+ improvement.

Table 2. Reserpine: Behavioral Indications and Failures

Indications	No. Pts.	Failures No.	Failures Per Cent
Assaultive	24	5	21
Assaultive, biting, self-injuring	6	3	50
Biting	2	2	100
Assaultive, self-injuring	6	2	33
Self-injuring	10	5	50
Destructive	2	1	50
Quarrelsome; noisy; hyperactive	4	3	75
Un-co-operative, insolent, quarrelsome	1		
Total	55	21	38

Twenty-one patients, or 38 per cent, showed improvement in one or several of the following areas: became ward worker (nine), became better worker (one), was more sociable (11), was cleaner and neater (seven), showed better table manners (three), took more interest (three), talked better (one), began to talk (four), fed self (one), could attend O.T. (four), could attend nursery class (two), and could be returned to academic school (one).

Four patients were taken off reserpine and continued to show improved behavior, as shown in Table 3.

Table 3. Patients Off Treatment (Improvement Maintained)

Age	Diagnosis	Mental Level	Indications	Months Treatment	Months Off Treat.	Result
10	Undif.	Moron	Assaultive, biting, destructive	2	8	4+ worker
8	Familial	Idiot	Assaultive, self-injuring, destructive, noisy, exhibitionistic (undressing)	1¼	8	3+
12	Undif.	Imbecile	Assaultive	4	6	3+
8	Familial	Idiot	Assaultive, hyperactive	7 (oral only)	1½	4+
16*	Familial	Moron	Un-co-operative, insolent, vulgar, quarrelsome, lazy	4½ (oral only)	Discharged	3+ worker

*This patient on retesting, scored on the borderline level and was discharged as not mentally defective.

The final results are shown in Table 4.

Table 4. Reserpine Results

	4+	3+	2+	1+	0	Total
With injections	10	13	2	—	18	43
Oral only	1	7	1	—	3	12
Total	11	20	3*	—	21	55

Current Daily Range 1-3 mg. 1-6 mg.

(Failure—0, Slight improvement—1+, Moderate improvement—2+, Marked improvement—3+, Excellent—4+.)

*1 patient died of pneumonia.

1 patient was placed on electric stimulation therapy.

1 patient, a nine-year-old imbecile, undifferentiated, assaultive and hyperactive, on 6 mg. daily, showed a 2+ response within a few days after phenobarbital, gr., ¾, t.i.d., was added.

Chlorpromazine

This drug was used in 66 patients, 10 of whom were failures with reserpine. The age range was five to 55 years. Twenty-eight patients were idiots, 12 low-grade imbeciles, 16 imbeciles, eight morons and two high-grade morons.

It was felt that mentally retarded patients might not need the larger doses used with psychotics. Therefore 36 patients (who weighed over 75 lbs.) were started on 100 mg. daily; the doses of 24 were increased, 16 to 200 mg., and eight to 300 to 600 mg. Twenty-one patients (weighing under 75 lbs.) were started on 50 mg. daily; the doses of 15 were increased, 11 to 100 mg., and four to 200 to 600 mg. The highest dose given was 600 mg. daily. Maximum responses were reached in seven to 14 days, with the range two to 45 days. Twenty patients were on treatment from four to seven months; 46 from two to three months.

Minor reactions lasting up to several days, occurred in only a few patients: drowsiness, headache, diarrhea, abdominal pain. One patient, a 27-year-old moron, developed a rash somewhat different from her usual recurrent dermatitis, and treatment was discontinued; she continued to show marked improvement.

A 34-year-old low-grade imbecile, undifferentiated, assaultive and a biter, self-injuring and destructive, complained after 10 days of treatment with 200 mg. daily, that the pills made her "nervous inside," and a day later, she showed an early parkinsonism. Treatment was resumed two weeks later with moderate improvement for 12 days; but within the next five weeks, she became increasingly more assaultive and complained of various body aches

and of difficulty in breathing. Treatment was stopped again, and she then was markedly improved—but only for four weeks.

After she had been off treatment for about two months, reserpine, 1 mg., t.i.d., was tried. Within a few days, excitement and the subjective complaint of asthma again recurred and continued after phenobarbital was added. She became very self-damaging, inflicting severe bruises about her eyes and head. She died of bronchopneumonia. Gross autopsy findings showed no pathology of the skull or brain. Microscopic findings were not available at the time of writing.

Parkinsonism occurred in two other patients, in one, on 200 mg., after one and a half months, and she remained 4+ without the drug for two months. In the other patient, parkinsonism occurred twice, when she was on 600 mg. daily, and when she was on 300 (this patient continued to develop resistance to varying dosages and was later tried on combination treatment).

Of the nine patients with convulsions, two had fewer seizures with chlorpromazine, and seven showed no change of frequency.

Twenty-seven patients developed resistance or tolerance to chlorpromazine, within one to 3 months. Seventeen responded favorably to increases of dosage.

The diagnoses and age distributions for these patients are found in Table 5.

Table 5. Chlorpromazine

Diagnosis	No. Pts.	Age Range Yrs.	Age Group Yrs. 5-9	10-12	13-19	20-55
Familial	11*	7-30	4	1	3	3
Epilepsy	3	11-22		1		2
Congenital lues	1	11		1		
Cerebrospinal meningitis	1	42				1
Organic nervous disease (Type unk.)	1	42				1
Birth trauma	6	5-42	1	1	2	2
C.C.S.I.P.**	3	15-16			3	
Gargoylism	1	15			1	
Phenylketonuria	1	13			1	
Microcephaly	2	9-11	1	1		
Undifferentiated	36*	8-55	5	7	6	18
Total	66	5-55	11	12	16	27

*Includes reserpine failure. There were one familial, nine undifferentiated.

**Congenital cerebral spastic infantile paralysis.

Table 6 shows behavioral indications for treatment, the number of patients and the number of failures. Many of these patients also were hyperactive, noisy, destructive, had tantrums, were stubborn, broke windows or liked to be nude.

Table 6. Chlorpromazine: Behavioral Indications and Failures

Indications	Patients No.	Failures No.	Failures Per cent
Assaultive	22 (5)	5 (2)	23
Assaultive, biting, self-injuring	14 (1)	1	7
Biting	3 (1)	2 (1)	67
Assaultive, self-injuring	4 (2)	1 (1)	25
Self-injuring	13 (1)	3	25
Destructive	2	1	50
Quarrelsome; noisy	3		
Un-co-operative, insolent, quarrelsome	2		
Un-co-operative, complaining, lazy, noisy	2		
Has tantrums, asocial, "falls" when head is touched	1		
Total	66	13	20

The 13 failures were from five to 42 years old; 25 per cent of the idiots and low-grade imbeciles, 13 per cent of the imbeciles, and 10 per cent of the morons were failures. Of the 10 failures which seemed to be the result of the development of resistance, four had also become resistant to reserpine. These 10 patients had been evaluated as showing moderate or marked improvement while they were still responding to chlorpromazine, and they included one very destructive patient, and two of the three biters, one of whom had been considered a failure on reserpine.

Twenty-six patients, or 47 per cent, showed improvement in one or several of the following areas: became ward worker (seven), better workers (five), more sociable (eight), cleaner and neater (two), displayed better table manners (four), took more interest (six), talked better (four), began to talk (one), fed self (one), could attend O.T. (six), could attend nursery class (four), could be returned to academic school (one), showed less choreiform movements (one), and showed much improvement in her stuttering (one).

Table 7 gives data for three patients who continued to show improvement after chlorpromazine was discontinued.

Table 7. Patients Off Treatment (Improvement Maintained)

Age	Diagnosis	Mental Level	Indications	Months Treatment	Months Off Treatment	Results
27	Undiff.	Idiot	Assaultive, self-injuring	1½	2	4+
27	Familial	Moron	Un-co-operative, noisy, moody	2	1½	3+
6	Familial	Idiot	Assaultive	1¼	1½	4+
16*	Familial	H. G. Moron	Un-co-operative, insolent, vulgar, quarrelsome, lazy	4½	Discharged	3+

*This patient, on retesting, scored on the borderline level and was discharged as not mentally defective.

The final results are shown in Table 8.

Table 8. Chlorpromazine Results

	4+	3+	2+	1+	0	Total
Chlorpromazine	4	24	11	7	10	56
Reserpine failures ..	1	4	1	1	3	10
Total	5	28	12	8	13	66
Current daily range (mg.)	100-150	100-200 (50-400)	200 (50-600)	100-300		

Combined Reserpine-Chlorpromazine

The combined treatment was tried from one to three and one-half months on 18 patients, four of whom had been treated unsuccessfully with reserpine, 10 with chlorpromazine, and the remaining four first with reserpine and then with chlorpromazine. There are eight idiots, six low-grade imbeciles, two imbeciles and two morons in this group. The dosage used ranged from 50 mg. to 800 mg. of chlorpromazine and 2 to 8 mg. of reserpine. It took one to 12 days to obtain maximum effect.

One patient showed some facial edema. The other reactions and failures will be described later. Four patients, including one biter resistant to reserpine and to chlorpromazine, developed tolerance to the combined drugs, but improved again on increases of dosage.

Table 9 shows diagnoses and age distribution.

Table 9. Combination

Diagnosis	No. Pts.	Age Range	Failed on	Age Group Years 5-9	10-12	13-19	20-42
Familial	3	6-10	2-C	2	1		
			1-R, C				
Epilepsy	1	22	1-C				1
Pertussis	1	9	1-R	1			
Birth trauma	4	5-42	1-R	2			2
			3-C				
Microcephaly	1	9	1-C	1			
Undifferentiated ..	8	8-33	2-R	3	2	1	2
			3-C				
			3-R, C				
Total	18	5-42		9	3	1	5

In Table 10 are found the indications, number of patients and failures. Destructiveness, hyperactivity, noisiness, tantrums, stubbornness were also present in some.

Table 10. Combination: Behavioral Indications and Failures

No. Patients	Indications	Failures No.	Per cent
5	Assaultive	(2-R, C)*	
		3 (1-C)*	60
2	Assaultive, biting		
3	Biting		
1	Assaultive, self-injuring	1 (R, C)*	100
6	Self injuring		
1	Destructive		
18	All groups	4	22

*Failed on drug indicated.

Improvement was noted in six patients or 33 per cent in one or more of the following areas: became ward worker (one), friendlier (four), took more interest (two), could attend O.T. (one), and talked better (one).

One patient showed a remarkable change. This is a nine-year-old idiot, a patient for almost seven years, with a diagnosis of mental deficiency due to pertussis. She was self-damaging, hitting

and banging her head. At irregular intervals she would have episodes, lasting several weeks, of coarse tremors of arms and head. There was very little awareness of, or response to, attendants and no interest in other patients. She had to be fed and dressed and was not toilet-trained. Her gait was very unsteady.

On January 6, 1956 when she weighed only 32 pounds, she was started on reserpine, 1 mg., once a day. This was increased at three-day intervals to three times a day. On the tenth day of treatment, there were no coarse tremors present (a fact which may have been coincidental). By the twelfth day, the child was considered as moderately improved but was still somewhat self-injuring. This response gradually diminished to slight improvement in the next 10 days. On January 27, she was placed on chlorpromazine, 25 mg., and reserpine, 1 mg., b.i.d., and by the following day again showed a return to moderate improvement. On February 1, the chlorpromazine was changed to 50 mg., at bedtime because of drowsiness during the day. On February 21, she weighed 38 pounds, a remarkable gain of six pounds in a month and a half.

This is how the attendants then described the patient: "Marilyn has shown a marked improvement, but not only in respect to self-injury. She is more alert and interested in her surroundings and in the other children, wanting to join in their play and very happy and cheerful when they play with her. She smiles when spoken to, loves to be talked to, and responds especially when called by name. She walks much better, no longer is so unsteady and wavering on her feet, and can even stand under the shower which she enjoys. Marilyn now can climb up and down the benches herself. She feeds herself with her hands and can also hold the cup of milk and drink from it. If she doesn't get her food fast enough, she will grab from other patients. She is partially toilet-trained, understands what she is expected to do when she is put on the seat, and even tries to get on it. She has not soiled in the morning for two weeks but has had bowel movements on the toilet. She now looks like a nice little girl, instead of a scarecrow."

The final results of combined therapy are given in Table 11.

One patient has shown parkinsonism three times, twice on chlorpromazine, at dosage levels of 600 mg. and 300 mg., and again

Table 11. Combination: Results

Failed on	3+	2+	1+	0	Totals
Reserpine	4				4
Chlorpromazine	3	1	5	1	10
Reserpine; chlorpromazine			1	3	4
Total	7	1	6	4	18
Current dosage mg.	50-200	100	150-800		
	2-4	1	3-8		

on combined therapy. She is now 22 years old and has been at Willowbrook almost two years. Her diagnosis is mental deficiency, with epilepsy, idiot. She started treatment on July 21, 1955. Because of resistance twice to increasing dosages, the recurring parkinsonism and no response to lower doses, combined therapy was instituted on December 3 with 200 mg. of chlorpromazine and 4 mg. of reserpine daily. The chlorpromazine was increased in two weeks to 400 mg., and a 3+ response was then obtained in two days, lasting about a month and a half. Resistance developed, and, during February, a 1+ improvement was maintained only by increasing the dosages of both drugs, the chlorpromazine to 600 mg. and the reserpine to 6 mg. and then to 800 mg. and 8 mg. on February 21. On March 1, signs of parkinsonism appeared, and treatment was discontinued on March 3, when there was a pronounced mask-like face, open drooling mouth, stiff gait and tremor, with restlessness and constant walking about. Whenever possible, she walked to the shower, got under it, and tried to turn on the water. Three days later, she was "normal" again and as destructive as ever before. She tore 30 dresses and rompers on herself and other patients. Incidently, she gained 13 pounds in seven months.

Brief reports of the four failures follow:

1.

This patient was 10 years old, and weighed 57 pounds. She was diagnosed familial, imbecile. She was assaultive to patients and attendants, quarrelsome, un-co-operative, hyperactive. She was started, July 30, 1955, on chlorpromazine, 25 mg., b.i.d. After the dose was doubled in two weeks, she showed a 2+ response lasting two weeks. Dosages had to be increased up to 400 mg.

daily, and the 2+ response obtained each time lasted from two weeks to two months. On November 29, she was placed on combined therapy of chlorpromazine, 200 mg., and reserpine, 2 mg., daily. Facial edema and poor appetite ensued in a week, and dosage was cut in half. The response was negative, and on December 31 the previous dosages of 200 mg. and of 2 mg. were restored. These were increased to 300 mg. and 3 mg., but again without results, except for drowsiness and listlessness. Reduction of dosage eliminated only these side reactions. The child gained 13 pounds.

2.

This patient of 33 weighed 92 pounds, and was diagnosed as an undifferentiated idiot. She scratched at the eyes and faces of other patients, broke windows, and was noisy at night. On August 22, 1955, she was placed on reserpine, 2 mg. daily, with no response. On September 10, 1955, chlorpormazine was started, 100 mg. daily, with a 3+ response in 12 days, lasting one and one-half months. On 200 mg. daily, there was marked improvement again for one month; then 400 mg. daily did not help. She was started on combined therapy on December 6, chlorpromazine, 400 mg., and reserpine, 4 mg., which brought about a 2+ response in three days, lasting until the patient became very listless and weak about three weeks later. She was transferred to the hospital building; treatment was discontinued; and, in two days, she was again assaultive. During January, combined therapy was again tried, with improvement, then recurring weakness and discontinuation. She lost 11 pounds in five months.

3.

This child of eight weighed 51 pounds. She was diagnosed undifferentiated, imbecile. She was assaultive, destructive, hyperactive, noisy. The reserpine routine was started April 27, 1955. Early parkinsonism appeared on May 4 for two days, and oral treatment only was resumed May 7. Eight more injections, however, were given from May 10 to 20. A 3+ response was obtained by May 25, and dosage was reduced gradually to 1 mg. In two months the response was 0, and despite increasing amounts of reserpine, it remained slight and then none. Chlorpromazine

was started November 1. Resistance always developed to increasing amounts, and, on 200 mg. daily, the patient was listless and drowsy. Combined therapy, chlorpromazine, 100 mg., and reserpine, 1 mg., was begun on December 29. On January 7, treatment was stopped because of the following picture. She became very hyperactive, restless and seemed confused. The eyes would roll upward, the head seemed to be pulled back, and the mouth was kept wide open. When her arm was raised, it stayed in that position. There were fine twitchings of the body. The temperature was 100, the pulse 112. Within a short time, she began to have attacks of tonic spasms of the voluntary musculature, when her body would arch backward, with head retracted and mouth open. There was no loss of consciousness. Her reflexes were normal. In eight hours, all this subsided, and the patient returned to her usual behavior. On January 20, she was given 50 mg. of chlorpromazine and 1 mg. of reserpine. Within five minutes she became restless, agitated, very hyperactive, did not talk and seemed confused. Her eyes rolled up, her mouth was pulled to the left, her right forearm was kept flexed, and there was frequent but scanty urination. Neurological examination was negative. This picture cleared up completely within 12 hours. She gained 12 pounds in nine months.

4.

This girl of seven weighed 69 pounds. She was diagnosed familial, imbecile; she was assaultive, destructive, self-injuring, hyperactive, noisy. She was started May 4, 1955 on a reserpine routine, but made no response, even to 6 mg. daily and additional injections. Chlorpromazine was tried from July 19 to November 4, with doses as high as 600 mg. daily, but resistance always developed. On November 4, combined therapy was begun with 200 mg. of chlorpromazine and 2 mg. of reserpine daily. These were increased at intervals to 600 mg. and 6 mg., but resistance would recur or the patient become too drowsy. Treatment was stopped on January 31, 1956. In February, the patient was tried on 100 mg. of chlorpromazine and ¾ gr. of phenobarbital, t.i.d. Response by the end of the month was 1+, with no drowsiness. This patient gained 15 pounds in nine months.

Three comparison tables are given. (Tables 12, 13, 14.)

Table 12. Behavior Indications and Failures

Indications	Reserpine	Reserpine Failures		Chlorpromazine	Chlorpromazine Failures		Combination	Combination Failures	
	No. Pts.	No.	Per cent	No. Pts.	No.	Per cent	No. Pts.	No.	Per cent
Assaultive	24	5	21	22	5	23	5	3	60
Assaultive, biting, self-injuring	6	3	50	14	1	7	2	—	—
Biting	2	2	100	3	2	67	3	—	—
Assaultive, self-injuring	6	2	33	4	1	25	1	1	100
Self-injuring	10	5	50	13	3	25	6	—	—
Destructive	2	1	50	2	1	50	1	—	—
Quarrelsome, noisy, hyperactive	4	3	75	3	—	—	—	—	—
Total	55*	21	38	66*	13	20	18	4	22

*Includes nonfailure patients (See Tables 2 and 6).

Table 13. Mental Level and Failures

Mental Level	Reserpine	Reserpine Failures		Chlorpromazine	Chlorpromazine Failures		Combination	Combination Failures	
	No. Pts.	No.	Per cent	No. Pts.	No.	Per cent	No. Pts.	No.	Per cent
Idiot and low-grade imbecile	30	14	47	40	10	25	14	2	14
Imbecile	19	6	31	16	2	13	2	2	100
Moron*	6	1	17	10	1	10	2	—	—
Total	55	21	38	66	13	20	18	4	22

*A group of 20 "problem" high-grade, teen-age morons, recently started on chlorpromazine and not included in this report, have shown 20 per cent of failures in the two months they have been under observation.

Table 14. Summary of Results

	4+		3+		4+ and 3+		2+		1+		0		
	No. Pts.	Per cent	No. Pts.	Per cent	No. Pts.	Per cent	No. Pts.	Per cent	No. Pts.	Per cent	No. Pts.	Per cent	Totals
Reserpine	11	20	20	36	31	56	3	6	—	—	21	38	55
Chlorpromazine	5	8	28	42	33	50	12	18	8	12	13	20	66
Combination	—	—	7	39	7	39	1	6	6	33	4	22	18

Conclusions

1. Age, weight, diagnosis, mental level and behavioral pattern apparently were not definite factors, whichever drug or combination was used, in determining dosage, bringing on minor side reactions, or causing parkinsonism reactions. Only mental level seems to influence failures: the more severe the mental defect, the greater the possibility of failure. The number of cases in each group of behavioral indications for treatment is too small to draw any definite conclusions, but it is the writer's impression that the patients whose chief misbehavior is biting respond the least, although they seemed to do better on combined therapy than on either drug alone. No factors have been detected that would help to foresee failures.

2. Chlorpromazine appears to be more effective than reserpine. Reserpine, by injection and orally, acts quicker than if injections are not used, but more minor side reactions occur.

3. Although the series is very small, combined therapy seems to offer some further hope of modifying behavior problems, even in biters. Further study is needed in a larger number of patients who have failed with each drug.

4. Only one patient has been tried on a combination of reserpine and phenobarbital, and one on a combination of chlorpromazine and phenobarbital with better response, but the periods of observation do not allow conclusions to be drawn at this time.

5. Some patients are functioning on a higher level.

6. A few patients show a paradoxical effect and respond with excitation rather than tranquilization.

7. Accidents are minimal, camisoles are rarely used, the paraldehyde bottle remains unopened, and clothing and windows are spared.

8. Resistance may develop, and failures will occur; but, nevertheless, reserpine and chlorpromazine are definitely a help in the management of behavior problems in the mentally retarded. Their use has brought about a change on the wards, comparable to that described in state hospitals. Successful treatment of even 20 per cent of the patients has produced surprising improvement of the ward atmosphere, whether it is a ward of noisy, disturbed, severely retarded patients or a ward of comparatively bright patients among whom are many "problem girls."

This study has shown that the "tranquilizing" drugs are of benefit in a state school. They have been of tremendous value not only in making the life of the patient treated more pleasant, but in producing quieter atmospheres for their co-patients, resulting in more cheerful wards. And they have been of value in making ward management easier and more pleasant for the attendants, who are now more relaxed. Their wards are no longer the difficult, hazardous, disturbed wards.

One may not as yet be able to determine, or measure with exactitude, the causes and mechanisms of brain dysfunction, but pathology must be present, if not grossly or microscopically, then in electric potentials, in biological, chemical or physical processes. And some of these disturbances are responding now to new chemical drugs. The full explanation of how, why and where lies, it is hoped, in the near future.

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A STATISTICAL DESCRIPTION OF A CLINICAL TRIAL OF PROMAZINE*

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Introduction

The material which is presented in this paper is intended as an example of the kind of relatively specific information that one can obtain, at least on a descriptive level, in the course of a clinical trial of a "tranquilizer," by the use of frequent and systematic observations on each patient throughout the course of the trial. It is noted, however, that the data presented herein were not obtained within the framework of a controlled study so that the degree of generalization of inferences which can be drawn from the data will be limited accordingly. It should perhaps be stated here that the idea of frequent and systematic observation with respect to each patient, as a means for the development of meaningful clinical data systems and realistic experimental designs, is a consequence of the acceptance of a probabilistic view of the patient-state, in practice, at least, if not as a theoretical principle. An elaboration of this concept will be found in a previous paper.**

The conditions under which a relatively definitive clinical study can be made require, in addition to an adequate number of patients (not easily predetermined), long sequences of observations about each patient—such sequences providing the basic data for the estimation of probability states and transition probabilities, and for the testing of various hypotheses about them.

In the present study, weekly data were collected for a period of only nine to 12 weeks for each patient. Although it had originally been planned to obtain these data over a much longer period, a rather high incidence of convulsive reactions occurred among the group of patients in the study. This, together with the failure to note clinically any apparent significant improvement in the group, led to the termination of the clinical trial. This cut the

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time shorter than was to have been allowed. It had been hoped to accumulate sufficient data for a more definitive example of the value of a statistical system which uses frequent and systematic observations of each patient. However, the incidence of the convulsive reactions did provide a focal point for illustrating the value of such statistics—even under conditions which limit their full benefit.

Although in this study convulsions and various other side reactions appeared predominant in relation to evidences of what might be interpreted as improvement, and consequently, over-all clinical impressions may have been very unfavorable, it is not until one studies in some detail the particular dosage levels at which side reactions occur in relation to dosages at which there is evidence of improvement, that one can secure a basis for deciding to select particular regimens (insofar as one may be concerned with weighing the risk of side reaction against the probability of improvement).

Course of Treatment

Background Data

The data of this clinical trial of promazine were obtained from observations made during the treatment of a ward of 50 "chronic" white psychotic women, varying in age from 32 to 66, and in periods of hospitalization from five to 25 years. About half of these patients had previously been on reserpine, and a few had been on chlorpromazine without notable success with either of these ataractics.

Incidence of Convulsions in Relation to Dosage

Nineteen of the 50 patients, or 38 per cent, experienced convulsive reactions while under treatment with promazine (sparine). The data gathered in this study suggest that the incidence of convulsive reactions during treatment with promazine, in a group of patients such as is described here, is related to the daily dosage level, and also to some extent to the rate of increase in the build-up of the dosage level.

Of the 19 patients who experienced convulsions, 14 had reached a dosage level of 1,000 mg. or more per day at the occurrence of

their respective seizures. Four of the other five had convulsions while they were on 900 mg. a day, and the fifth was on 800 mg.

From the standpoint of the dosage schedules, the 50 patients in the study can be divided into three subgroups of 15, 20 and 15 (Groups I, II and III). Up to the point where a side reaction counterindicated the continuation of the schedule for a given patient, there were only comparatively small deviations from each of the schedules, within each subgroup, with some exceptions in the last group.

The first group of 15 patients were on the schedule which contained the slowest rate of build-up. Convulsions were experienced by five of these patients. Three of the five occurred at daily levels of 1,600 mg. each; the other two occurred at 1,200 and 1,400 mg., respectively. The total accumulated dosage up to the start of convulsions ranged from about 80 to 100 gm. for each patient, and the interval between the start of therapy and the first convulsions varied from 103 to 117 days.

In the second group, the build-up of the dosage level proceeded at a considerably faster rate. Convulsions occurred in 10 of the 20 patients in the second group, as compared with five out of 15 in the first group. The convulsions in the second group also occurred after considerably shorter periods and at generally lower dosage levels.

Of the 10 patients in this second group who suffered convulsions, four had their first ones after a dosage level of 900 mg. had been reached. Two had convulsions at a level of 1,000 mg. and three at 1,400 mg. Six of these first convulsions took place from 19 to 45 days after the start of drug therapy; the other four from 71 to 93 days afterward. Cumulative dosages to these convulsions varied correspondingly from 12 to 81 gm.

Table 1 contains a summary description of the approximate dosage schedules of Groups I and II, respectively.*

In Group III, the rate of increase of the daily dosage level was somewhat more rapid on the average than that for the second group. Five of the 15 patients in the third group started on an initial daily dosage of 150 mg., intramuscularly, and reached a

*For ease of cross reference in the study of the tables themselves, they have been placed together near the end of this paper.

level of 1,000 milligrams a day within 30 days. Two of these five patients experienced convulsions; one on the forty-first day of treatment; the other on the forty-second; both patients were on a daily level of 1,400 mg. when the convulsions took place, and their cumulative dosages reached about 35 and 36 gm. respectively.

The other 10 patients in the third group each had a first day's dosage of 50 mg., intravenously, with some variation in route and build-up until a daily dosage of 600 mg., orally, was reached. Two patients in this group experienced convulsions; one at a daily dosage level of 1,000 mg., with a cumulated dosage of about 30 gm., 61 days after the start of treatment. In this case, the actual number of days on promazine was 47; there was a period of two weeks of no drug treatment between a first and second course of promazine.

The other patient who had a convulsion in this group of 10 had one at a level of 800 mg., with a cumulated dosage of 9 gm. on the fourteenth day of treatment. While these three figures are each lower than any of the corresponding ones among the other 18 cases of convulsions, it may be of some interest to note that the rate of increase in daily dosage level over the first few days of therapy was considerably greater in this patient; from 50 mg. intravenously on the first day, the patient went to 300 mg. intramuscularly on the second, and to 600 mg. orally on the third day. (Table 2 gives data on convulsions for the individual patients.)

Incidence of Allergic Dermatitis

Fifteen of the 50 patients, or 30 per cent, had side reactions of allergic dermatitis. (Six of these patients were among the 19 who had convulsions; thus the total number of patients to have had convulsions or allergic dermatitis, or both, was 28, or 56 per cent.)

The incidence of allergic dermatitis was somewhat similar to that observed in the convulsive reactions, although the allergic reactions occurred at somewhat lower dosage levels than did the convulsions.

Among the 15 patients in Group I, there were two cases of allergic dermatitis; these occurred at daily levels of 1,000 and

750 mg. per day, respectively, on cumulated dosages of 85 and 18.4 gm., and after 105 and 34 days of treatment respectively.

Seven cases of allergic dermatitis occurred among the 20 patients in Group II. Four of these occurred at dosage levels of 1,000 mg. a day; of the remaining three in this group, one occurred at 900, one at 600, and one at 800. Individual cumulative dosages through the point of allergic reaction among these seven patients ranged from about 13.5 to 31.2 gm.; the time from the start of treatment ranged from 21 to 50 days.

Among the 15 cases in the third group, there were six cases of allergic dermatitis; four at 1,000 mg. per day; one at 900, and one at 800. Cumulative dosage ranged from 9.1 grams to 27.1; time after start of drug, from about 14 to 43 days. (Table 3 shows detailed data on the incidence of allergic dermatitis.)

Other Side Reactions (One Death)

In addition to the comparatively large incidence of convulsions and of allergic dermatitis, there were other side reactions, the most serious of which occurred in a patient in Group III who had a convulsion on the sixty-first day of treatment on a daily dosage level of 1,000 mg., and who developed agranulocytosis and pneumonia within a week and died.

In Group I, a case of vertigo was reported at a daily level of 900 mg., a case of severe hypotension at 450 mg., and two cases of edema at 1,000 and 1,200 mg. respectively.

In Group II, one patient developed edema (ankles and feet) at a daily level of 900 mg. and upper quadrant and epigastric pain with abdominal distension at 1,000 mg. This same patient had a convulsion at 1,400 mg. Another Group I patient developed tremulousness and vertigo with unsteady gait at 1,600 mg.

In Group III, in addition to the case of agranulocytosis noted, there was one case of generalized edema at 1,000 mg., one of tachycardia at 600, and one of tremulousness and vertigo with unsteady gait at 1,200. (Table 4 gives individual data relevant to the reactions discussed here.)

Evidences of Tranquilization in Relation to Dosage Level

During and just before the start of the clinical trial, observations were made on each patient by two nurses who were regu-

larly assigned to the ward on which the study took place. These observations were made on a check list prepared *each week* with respect to a number of items having to do with various relevant aspects of the patient's living on the ward. In particular, there were two items which dealt with combativeness and sleep, respectively.

Among the 50 patients in the study, there were 14 who were reported as combative just before the start of treatment. Table 5 shows, by patient and group (according to dosage schedule), how many weeks after the start of drug therapy these patients were first reported as not being combative, the range of the daily dosage level during the week in which this took place, and the corresponding range of the cumulative dosage. Reference to Table 5 shows that in Group I (the group in which the build-up of dosage level was slowest) four patients were reported as combative at the start of therapy. Each of these patients was first reported as not combative at from three to four weeks after the beginning of drug therapy, and while they were on daily dosage levels of from 500 to 700 mg. It is noted that this range of dosage level is considerably below that at which convulsions among the 15 patients in this same group took place. It is to be recalled that convulsions took place in five of the 15 patients in this group, and that in each case the daily dosage level at the time of convulsion was 1,200 mg. or higher.

In the second group of 20 patients, there were seven who were reported as combative just prior to therapy. Five of them were first reported as not combative during the first week of therapy on dosage levels of from 100 mg. per day at the beginning of the first week of therapy, to 600 at the week's end. Another patient was reported as not combative during the second week at 700 mg. a day; and one patient during the eighth week, while on 1,000 mg. daily. Thus six of the seven initially combative patients of the second group were first reported as not combative while on daily dosage levels distinctly below the range of levels at which convulsions took place in this group.

In the third group, three patients were reported as initially combative, and two of them became not combative during the first week of therapy.

Table 6 shows similar data with respect to patients not sleeping well just prior to the start of drug therapy. In general, the same kind of results are obtained. That is, a comparison of the data of Table 6 with that of Table 2 clearly reveals that, with few exceptions, the dosage levels at which transitions to a state of sleeping well first took place were distinctly below those at which convulsions occurred.

Considering poor sleep and combativeness as manifestations of hyperactivity, the question arises as to whether, following the start of drug therapy, these hyperactive states were replaced by relatively normal activity, or if, instead, there was, in general, a transition toward hypoactivity. In the data system used in this study, another of the variables that were singled out to be reported each week with respect to each patient in the study was that of seclusiveness. The data collected on this variable show that, with but one exception in the whole 50 patients in the study, all remained seclusive for the most part (if they were reported as seclusive just prior to the beginning of drug therapy), or they tended to become seclusive for varying periods (if initially they were reported as not seclusive). For Groups I, II and III, Tables 7, 8 and 9, respectively, show observations on each patient with respect to combativeness and seclusiveness for the weeks of the study. (As each report covered a full week, there are some weeks during which combativeness and seclusiveness were both checked for the same patient.)

The use of the combativeness variable as a measure of hyperactivity should, of course, be regarded as only one of a set of possible behavioral manifestations of hyperactivity. It is not necessarily to be considered the most important, except perhaps from the standpoint of ward management. When this variable is singled out, it does have the advantage of being comparatively reliable in the sense of "inter-rater agreement" with a minimum of definition.

In the present study, "destructiveness" was also reported. While a total of 14 patients were reported as combative prior to the start of drug therapy, only eight patients (with two overlapping as initially combative) were reported as initially destructive. Data comparable to Table 5 on combativeness are presented in Table 10 for destructiveness.

Autism

A relatively high proportion of the patients in this study, as might be expected, were manifestly autistic. This was true at the beginning of the study, and there was very little change in this regard during its entire course. The number of patients who were autistic in one or more ways (e.g. with respect to delusions, hallucinations and/or disorientation—these items had also been reported each week on the basis of a short weekly psychiatric interview of each patient) changed very little, increasing or decreasing by a very few, at most, from week to week.

Table 1. Dosage Schedule of Patients on Promazine

	Group I		Group II	
Day of Treatment	Daily Dosage mg.	Cum. Dosage gm.	Daily Dosage mg.	Cum. Dosage gm.
1	50	.05	100	.1
2	100	.15	200	.3
3	150	.3	300	.6
4	300	.6	600	1.2
5	400	1.0	600	1.8
6	400	1.4	600	2.4
7	400	1.8	600	3.0
14	500	5.1	800	8.1
21	650	9.5	900	14.1
28	700	14.3	950	20.7
35	800	19.7	1000	27.7
42	850	25.5	1000	34.7
49	900	31.8	1000	41.7
56	900	38.1	1000	48.7
63	900	44.4	1000	55.7
70	900	50.7	1000	62.7
77	900	57.0	1000	69.7
84	1000	64.0	1000	76.7
91	1000	71.0	1200	84.7
98	1000	78.0	1600	95.1
105	1000	85.0	1200	104.7
112	1200	93.0	200	110.1
119	1600	103.4	—	—
126	1200	113.0	—	—
133	200	118.5	—	—

Note: In both of these groups the promazine was given intramuscularly through the 300 mg. daily level, and orally for higher dosages.

Table 2. Patients with Convulsions

	Study Case No.	Dosage at Occurrence (mg.)	Cumulated Dosage (gm.)	Day of Treatment
Group I	2	1600	100.2	117
	5	1400	95.8	114
	7	1200	82.0	103
	12	1600	90.0	105
	15	1600	86.8	103
Group II	18	1000	24.7	32
	19	900	12.3	19
	20	1400	80.7	93
	21	900	22.5	33
	29	1400	74.0	81
	30	1200	67.4	76
	31	900	19.8	29
	32	1400	63.5	71
	33	1000	36.1	45
	35	900	19.5	30
Group III	37	800	9.0	14
	44	1000	31.4	47
	47	1400	36.2	42
	50	1400	34.8	41

Table 3. Patients with Allergic Dermatitis

	Study Case No.	Dosage at Occurrence (mg.)	Cumulated Dosage (gm.)	Day of Treatment
Group I	5	1000	85.0	105
	6	750	18.4	34
Group II	25	900	18.0	26
	26	1000	25.8	34
	27	1000	40.8	49
	29	1000	25.8	34
	30	800	13.5	21
	33	1000	34.1	32-40?
	35	600	31.2	49-50?
Group III	39	1000	27.1	35
	40	1000	21.1	29
	42	1000	22.4	31
	43	1000	27.4	43
	46	900	17.5	25
	50	800	9.1	13-15?

Table 4. Patients With Other Side Reactions

	Study Case No.	Dosage at Occurrence (mg.)	Cumulated Dosage (gm.)	Day of Treatment	Other Reactions
Group I	3	900	52.2	72	vertigo
	6	450	1.4	6	severe hypotension
	10	1000	66.6	87	facial edema
	14	1000	71.2	91	edema—lower extremities
		1200	76.8	96	edema—generalized
Group II	20	1000	24.7	32	upper quadrant pain with abdominal distension
		1000	26.7	34	epigastric pain with abdominal distension
		900	50.3	55-64	edema—ankles, feet
	26	900	16.2	24	abscess at site of I.M. injection
		1600	77.0	82	tremulousness, vertigo with unsteady gait
Group III	38	600	1.5	4	tachycardia
	40	1000	24.1	32	edema—generalized
	44	1000	43.6	73	died (agranulocytosis, pneumonia)
	49	1200	28.4	36	tremulousness, vertigo with unsteady gait

Table 5. Patients Combative at Start of Therapy

	Study Case No.	First week reported as not combat. (after start of therapy)	Dosage Level (mg.)		Cum. Dosage (gm.)	
			At beg. of wk.	At end of wk.	At beg. of wk.	At end of wk.
Group I	1	fourth	650	700	10.1	14.3
	2	third	600	650	5.7	9.5
	4	fourth	650	700	10.1	14.3
	14	third	500	650	5.5	9.0
Group II	25	first	100	600	0.1	3.0
	27	first	100	600	0.1	3.0
	28	second	700	700	3.7	7.9
	30	first	100	600	0.1	3.0
	31	first	100	600	0.1	3.0
	34	eight	1000	1000	41.1	47.1
	35	first	100	600	0.1	3.0
Group III	46	first	150	600	0.1	3.4
	47	first	150	600	0.1	3.4
	50	no report*	—	—	—	—

*Reported for eight weeks only.

Note: Groups I and II reported on 12 consecutive weeks following start of therapy; patients in Group III reported on from eight to 12 consecutive weeks.

Table 6. Patients Not Sleeping Well Prior to Start of Therapy

	Study Case No.	First week reported as sleeping well (after start of therapy)	Dosage Level (mg.) At beg. of wk.	Dosage Level (mg.) At end of wk.	Cum. Dosage (gm.) At beg. of wk.	Cum. Dosage (gm.) At end of wk.
Group I	1	first	50	400	.05	1.8
	2	tenth	900	900	45.3	50.7
	3	third	600	650	5.4	9.1
	4	third	600	650	5.7	9.5
	5	third	600	650	5.7	9.5
	6	second	450	550	2.3	5.3
	10	seventh	850	850	25.6	30.7
	12	third	500	650	5.5	9.0
	14	ninth	900	900	37.8	43.2
Group II	16	first	100	600	0.1	3.0
	17	first	100	600	0.1	3.0
	18	fifth	1000	900	21.7	27.5
	19	first	100	600	0.1	3.0
	29	seventh	1000	1000	34.8	40.8
Group III	36	first	50	600	.05	3.3
	37	first	50	600	.05	3.3
	38	first	50	600*	.05	.95
	39	first	50	600	.05	3.3
	50	no report	—	—	—	—

*Third day of treatment followed by tachycardia.

Note: Groups I and II reported on 12 consecutive weeks following start of therapy; patients in Group III reported on from eight to 12 consecutive weeks.

Table 7. Weeks of Study During Which Patients Were Reported as Combative and as Seclusive
Group I*

Study Case No.	Weeks Combative**	Weeks Seclusive**
1	0-3, 9	6, 11, 12
2	0-2, 9	0, 6-12
3	None	6
4	0-3, 9	5-8, 10-12
5	None	9, 11, 12
6	None	0-12
7	10, 11	0-9, 12
8	3, 8, 11, 12	0-12
9	None	0-12
10	None	0-10, 12
11	None	0-4, 6-12
12	None	0-3, 5-12
13	None	0-8, 10, 11
14	0-2, 8-12	0-12
15	None	4, 7, 8, 10-12

*Group with slowest build-up in daily dosage.

**Zero week represents observation prior to start of drug therapy.

Table 8. Weeks of Study During Which Patients Were Reported as Combative and as Seclusive
Group II

Study Case No.	Weeks Combative*	Weeks Seclusive*
16	None	0-10, 12
17	None	2-6, 8-12
18	None	0-7, 10
19	None	0-7
20	None	0-12
21	None	1-12
22	None	0-12
23	None	0-12
24	6-8	0-3, 5, 6, 9, 10, 12
25	0, 6	4, 8-12
26	None	0-2, 7-9, 11
27	0, 4-8, 10, 11	1, 5-12
28	0, 1, 5	0-12
29	None	0-12
30	0, 4-6	0-12
31	0, 4, 5	0-12
32	4, 6	0-12
33	None	0-12
34	0-7	0-12
35	0, 4	0-12

*Zero week represents observation prior to start of drug therapy.

Table 9. Weeks of Study During Which Patients Were Reported as Combative and as Seclusive
Group III

Study Case No.	Weeks Combative*	Weeks Seclusive*
36	None	0, 1, 3-9
37	4-8	7-10
38	None	0, 1, 7-9
39	None	0-12
40	2, 3, 5	0-12
41	2	0-9
42	None	3, 5, 7, 9-11
43	2	0-9
44**	None	0-7
45	None	None
46†	0, 2, 3	0-8
47†	0, 2-5, 7	0-8
48†	None	0-8
49†	None	0-8
50†	0-8	3, 5, 8

*Zero week represents observation prior to start of drug therapy.
**Died July 27, 1956.
†Reported for only 0-8 weeks.

Table 10. Patients Reported as Destructive Prior to the Start of Therapy

	Study Case No.	First week reported not destructive (after start of therapy)	Dosage Level (mg.) At beg. of week	Dosage Level (mg.) At end of week	Cum. Dosage (gm.) At beg. of week	Cum. Dosage (gm.) At end Of week
Group I	3	tenth	900	900	45.0	50.4
	4	fifth	750	800	15.1	19.7
	11	first	50	400	.05	1.8
	13	first	50	400	.05	1.8
Group II	25	fourth	900	900	14.4	19.8
Group III	39	none	—	—	—	—
	40	second	700	700	4.0	8.2
	50*	none	—	—	—	—

*Reported for weeks 0-8 only. Zero week represents observation before start of therapy.

Note: Groups I and II reported on 12 consecutive weeks following start of therapy; patients in Group III reported on from eight to 12 consecutive weeks.

Summary and Limitations

In summary, the material presented suggests that optimal maximum dosage levels in balancing tranquilization effects (as measured by improvement in sleep and the reduction of combativeness) against the risk of convulsive and other side reactions, for a group of patients such as were described, lie somewhat below 1,000 mg. a day, preferably around 800 mg. This is especially suggested if the tranquilizing effects are to be expected to take place relatively early by the use of a comparatively rapid build-up in dosage level. By "relatively early," is meant within a week or two from the start of promazine therapy for most cases; and by "a comparatively rapid build-up" is meant the build-up in the dosage schedule of the second or third groups as compared with that of the first.

In considering these inferences, the reader is reminded of the comments made in the introduction of this paper concerning the limitations of the data of this study. Specifically, it is worth noting that the procedure by which patients were selected for the different dosage schedules was not based on principles of randomization and experimental control. Thus, without having as systematically

observed a similar group of patients as controls, or the same group of patients over a longer period prior to the start of therapy as "self" controls, or both, it is at least theoretically possible that changes which seem related to drug therapy were actually entirely random and unrelated to therapy. In the present study, the apparent internal consistency of the data does however contribute somewhat to the feeling that the data are not purely random. This, of course, is no argument against the need for more sophisticated studies which incorporate the principles of experimental design.

A second, and perhaps even more important, consideration or limitation applies not only to this study but to any study in clinical psychiatry in which all of the patients in the study are located on the same ward. This is the question of statistical independence of the observations. The lack of statistical independence among positively correlated observations has the effect of reducing the level of statistical significance—or reducing the power of the tests of relevant hypotheses—and likewise increases the variances of estimated parameters. In fact, it becomes very difficult to make exact tests of significance under these conditions and to obtain reliable estimates of parameters unless one has sufficiently large quantities of data, under conditions in which one can apply appropriate and valid statistical techniques toward these ends.

The practical implication of these comments with respect to the data of this paper as well as of data from other like studies, is that it is not entirely unlikely that a repetition of the study under essentially the same conditions would yield differences in results, some of which might appear statistically significant, if one ignored the question of statistical independence of the observations within a study. That is, even if one tries and is fairly successful in keeping constant what appear to be the basic initial conditions and the fixed parameters from one study to another, one can still expect a degree of variability in results between studies. This on the face of it, might appear contradictory. Only by *combining* the results of the different studies, rather than by following the practice of using one set of results as a refutation of another, can continued progress be made in this general area.

This, of course, does not mean that the results obtained in a single statistical study of a clinical trial such as the present one

are not useful in themselves. In the first place they can provide a first approximation of results to be expected in future trials if the same regimens are followed with the same kind of patients and under the "same" conditions; and, second, they may suggest, as in the present study, possible changes in the protocol to improve the results in one direction or another.

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ANALYTIC WORK WITH LSD 25*

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A. Theoretical Remarks

1. *Introductory Explanations*

The following paper is an attempt at evaluating the use of LSD 25 as an aid to deep analysis. No attempt is made here to enter into the discussion of the various aspects of the biochemical actions of the drug (for example, its value in exploring the phenomena of schizophrenia and their possible antidotes in terms of biochemistry).

Instead, this paper is solely concerned with the psychotherapeutic aspect of work with the drug and the way in which it can be integrated into general analytical procedure. In addition, some theoretical inferences will be drawn, as it seems that analytical work with the drug can help to throw some light on the dynamics of psychological processes generally.

However, before going into these questions, a few general data on the nature of the drug and the technique employed in the use of it may be useful.

The trade name "LSD" stands for *lysergisch-saures Diathylamid* (lysergic acid diethylamide). It is a synthetic preparation of a substance (d-lysergic acid) originally extracted from the ergot fungus, which was first prepared by Stoll and Hoffmann in 1938. In 1947 and 1949 Stoll reported (quoted in Sandison, Spencer and Whitelaw, 1954[1]) "... in detail the chemistry and pharmacology of the drug and considered that the symptoms produced by LSD 25 in the normal subject were the expression of an acute exogenous psychosis analogous to that produced by alcohol, opium, cocaine, hashish, mescaline and the amphetamines."

The state produced in the subject under LSD has in fact often been compared to an artificially-induced schizophrenia; and, since the first publications, most of the literature has been devoted to the effects of the drug on the various biochemical and physiological processes, in animals as well as humans. The different biochemical and physiological effects produced by the drug on so-called normal people, as well as on neurotics, or even psychotics, have been the

*This report is based on a paper read at a meeting of the (British) Society of Analytical Psychology in 1957.

main objects of consideration. There are also a number of papers which record psychological changes produced by the drug in normal as well as abnormal subjects, changes which all point to the fact that, through the chemical action of the drug on the human organism, the higher functions of the brain are curbed, and, as a result, normally unconscious contents may emerge into consciousness.

However, there are very few papers so far which consider the psychological changes produced by LSD from the viewpoint of dynamic psychology, and only two of these, to the writer's knowledge, those of Sandison[2] and Frederking,[3] give any psychological interpretations (Sandison mainly along Jungian lines).[2] This paper attempts to do just that.

The main feature that has struck everyone who has concerned himself with the psychological effects of LSD is their *unpredictability*. In spite of certain typical reaction patterns, no two LSD sessions are ever alike—either in different people or in one and the same person. To an analyst, this is not surprising, as the main psychological feature of the drug is a facilitation of the emergence of unconscious material, which, though it follows its own psychological laws, may appear to anyone but an analyst to be completely arbitrary. Thus the experiences of persons under LSD have much in common with dreams or visions or images of the active imagination, but they also include actual hallucinations, alterations of the body-image or drastic changes of mood to the point of actually inducing psychotic behavior, such as violence, often coupled with paranoid states, severe depressions to the point of actual attempts at suicide, phenomena of depersonalization, and phenomena of altered or distorted perception of the outer world.

With all such possible reactions, even in normal persons, it is obvious that it would not be safe to give the drug without adequate supervision to anyone who was not on fairly good terms with his own unconscious. Such supervision, if possible, should be inside a hospital.

The way to deal with patients under LSD varies from analyst to analyst about as much as analysis itself. The writer's aim has always been to use it as sparingly as possible and to keep the *main accent on the analysis itself*. The writer has had patients who, in two years of analysis, had only two or three sessions with LSD.

With others it was found helpful to give the drug weekly, fortnightly or at intervals of a few weeks for certain periods during the analysis, and then perhaps have long periods without it. It is obvious that the drug is resorted to when the patient's material is not coming forth sufficiently for the work to proceed.

This, of course, brings up the question whether it is justifiable to break through what appear to be resistances on the patient's part by using the weapon of a drug. Should not resistances be worked through in patient analytical work; is there perhaps an obstacle in the transference situation which prevents the progress of the analysis; or are there perhaps times of seeming barrenness which in truth may be periods of incubation or assimilation in the unconscious, the rhythm of which should not be disturbed by violent action? Or is it perhaps a simple insufficiency on the part of the analyst that causes the analysis to come to a standstill?*

The writer believes that it is very important for any analyst to remain awake to these problems when working with LSD (or indeed with any kind of "short cut" in analysis), and in this paper the problems will be dealt with again at a later stage. At this point it may perhaps be sufficient to remember that, generally speaking, unconscious processes are of too forceful a nature to be easily deflected, even by fairly drastic measures. As in general analysis, material which may emerge prematurely—i.e., before the patient's general development has caught up with what may be an anticipatory experience—will be forgotten or not followed up after the LSD session.

On the other hand, the danger of a change from a latent to an overt psychosis through the action of the drug seems less than one might expect, as long as the analyst is present during the crucial experiences and can represent the integrating ego-function for the patient.

Last, it seems to the writer that it is no good denying that there are a great number of cases who, for various reasons, would either, not at all, or only extremely slowly, respond to pure analysis, however skilled and well integrated the analyst himself may be, but who, with the help of certain auxiliary means—such as, for instance, this drug—can still be helped.

Because of the drastic nature of some LSD experiences, most analysts now spend several periods during the treatment day with

*Cf. editor's comment on Frederking (Ref. 3).

their patients. Each of these periods may last for an hour or more. The writer herself has, on occasions, spent up to two hours at a stretch with a patient, when she felt the need for it. Between the analyst's visits, many patients feel the need for the reassuring presence of a nurse, or at least of a friend. In *neurotic* patients there is usually a clear awareness that their experiences are produced by a drug; and, with part of themselves, they can maintain the roles of onlookers (similar to the attitude taken up in active imagination).

The closer to a *psychosis* a patient is, the more he will naturally tend to identify himself with, and become absorbed by, his visions or hallucinations; and the more necessary is the presence of an outsider to keep him "sane" or prevent him from "acting out," e.g., becoming violent or suicidal. (Regarding "acting out," see p. 747.)

In the early stages of experimentation, patients were sometimes allowed to take the drug home and have it by themselves. This had, in a number of cases, an almost traumatic effect. Nowadays, most analysts (the writer would think) would be inclined to interpret the drug-induced phenomena while they are staying with the patient and taking part in his experiences. However, the writer finds that it is best to communicate a minimum of interpretation at the time, so as not to interrupt or influence by suggestion the natural flow of the inner events. More detailed interpretation can be given in subsequent interviews, as the patient usually remembers his LSD experiences in almost all details.

In the cases described in this paper, the drug was given orally, and the usual dosages varied between ¼ and 4 cc.,* according to the individual patient's response. The patient spent "LSD-day" in bed. The drug was given in the morning; and the effects of it reached their peak from two to three hours after ingestion, and usually wore off toward late afternoon. In most cases, nembutal was given at the end of the day to counteract the more drastic effects of the LSD. Special precautions were taken to insure supervision of patients in the (rare) cases of spontaneous recurrence of the "LSD shakes," a day (or even longer) after administration.

*Strength, 100 micrograms per cc.

2. *Observations on Effects of the Drug and Its Interaction with the General Analytical Processes*

In trying to describe or to evaluate the qualities of the drug and its psychological effects, one of the difficulties is that it produces so great a variety of reactions. For this reason, most observers have stressed some of the factors, while leaving out, or only hinting at, others.

The fact is generally accepted that LSD facilitates the emergence of unconscious material and that the states produced by the drug frequently resemble, in certain respects, those of actual psychosis. Apart from that, the accent has been put on a variety of separate phenomena, according to the standpoints of the different observers. (This comment is in reference to the literature as well as to lectures and discussions about the drug.)

Stress has been laid on the abreactive qualities of LSD by some observers, whereas others emphasize the need for the reintegration of emerging unconscious material. Some writers stress the value of the revival of childhood memories, whereas others lay emphasis on archetypal experiences (Sandison). In this connection the question of the reality or the symbolical quality of apparent birth-memories (e.g., as re-birth experiences) has been touched upon (mainly by Sandison[2] and Frederking[3]).

Again, some writers have stressed the extraordinary vividness of sensual perception, while others have stressed the similarity of the experiences with the drug to mystical states; or, indeed, both of these aspects have been commented on together (mainly by Huxley[4]; see also the controversy between Huxley and Zaehner). Some have commented on the synesthetic character of many of the experiences (Frederking), whereas others, like Mayhew,[5] have reported extraordinary experiences with regard to time—timelessness or reversal of time. Further, alterations of the body-image have been mentioned (Sandison).

Almost as complex as the question of the mode and the contents of these experiences is the problem of their effect on the transference situation and the role played by the analyst who administers the drug. But so far very little has been said in detail about this (see Sandison[2]).

In this paper, the writer is trying *first*, to consider the great variety of experiences from one particular angle, through which

may be discovered one guiding principle behind the variety and seeming arbitrariness of experiences; *second,* to present some ideas relating to questions of transference in the use of the drug.

Complementary Character of Material Found to Emerge under LSD

During three years of work with LSD 25 at a mental hospital with both in-patients and out-patients, the writer noticed, more often than would be due to pure chance, that the material emerging under LSD, far from being chaotic, reveals, on the contrary, a definite relationship to the psychological needs of the patient at the moment of his taking the drug.

If one believes with Jung that the activities of the unconscious are to a great extent complementary to those of consciousness, it is not surprising to find that unconscious activity observed under the influence of the drug reveals its *compensatory* character—in a similar way to that observable in dreams, visions (including active imagination) and other manifestations of the unconscious in general.

On the other hand, the writer does not believe it to be begging the question to say that the phenomena observable under LSD seem to confirm, even more clearly than those observed in general analysis, Jung's idea of the *psyche as a self-regulating* system, in which unconscious activities function as compensatory factors in the service of a striving toward wholeness. The teleological factor introduced by Jung into the conception of the unconscious seems to become more obvious when one has the chance of observing reactions to LSD in a fairly large number of patients for several years. Looking at the material obtained in this way, it appears as if something like an autonomous selective process is at work, determining the sequence of the emerging material in a purposive way—as if whatever emerges is just what is "needed" for any particular patient at any particular time, as a factor complementing the conscious personality.

The following categories are meant to serve as a guiding principle for grouping clinical material according to the idea of complementation and compensation. In grouping it, a number of Jung's conceptions are made use of, as it appears that, with their help, a certain amount of system can be brought into the seeming chaos and arbitrariness of LSD experiences.

Categories of Typical LSD Experiences with Special Regard To Their Complementary Tendencies

1. Drastic experiences through sudden activation of one or more inferior functions, for example vivid experiences of sound, color and other sensations, also experiences in the form of synesthesia in intuitive or thinking types of personality. Also, reversal of attitudes (introversion—extroversion).

2. Emergence of repressed material of the personal unconscious—childhood memories and traumata (including, possibly, genuine birth traumata) —experienced not only as memories but with the corresponding physical sensations.

3. Alterations of the body image, by bringing into prominence bodily regions of which the patient previously had been too little aware. (Physical sensations of shrinking frequently accompany childhood memories.)

4. Activation of archetypal (healing) symbolism, particularly in connection with archetypal aspects of transference phenomena (again, experienced not only as fantasy but accompanied by physical sensation).

5. Experiences which seem to resemble those of a mystical or cosmic character, something like an ultimate unity of all creation (cf. the following).

If one accepts Jung's theory of functions at all, Point 1 of the categories is of a complementary nature by definition. Point 2 would be complementary inasfar as the neglected or underdeveloped function is largely bound up with and "stored" in (repressed) childhood experiences. This shows most clearly in many of the experiences relating to alterations of the body image (Point 3). For Point 3, see the illustration from clinical material.

The complementary aspect of experiences of archetypal character (Point 4) is inherent in the very conception of an archetype (Animus, Anima, the Good and Bad Parent archetypes, etc.). As for those experiences (Point 5) which have been compared to mystical experiences (whether rightly or wrongly so is not of concern here), these are usually not only synesthetic but also contain a sudden new awareness of "meaning" (see the following). It would seem that here, too, a successful complementation, through the momentary working together of all four functions, has been achieved, to result in a momentary experience of "wholeness"—or to put it into more strictly Jungian terms, that in such experiences the archetype of the Self is, if only momentarily so, being realized. (See Scott[6, p. 156].)

Theoretical Observations on Transference with LSD (Including Question of "LSD Groups")

Before illustrating the problems of transference, in connection with LSD treatment, from clinical material, some theoretical remarks may again be of use.

As in general analysis, transference phenomena under LSD vary widely in range and intensity, and the handling of the transference varies from analyst to analyst and from session to session. The analyst may be the almost entirely objective observer who, during any one session, passively accepts projections, or he may enter into a relationship with the patient and either "incarnate" or interpret projected contents (Plaut[7]).

As, however, under LSD the ego-threshold is rather suddenly lowered and the patient's defenses against the impact of emotional and instinctual or archetypal contents are suddenly weakened, a greater amount of anxiety may be engendered than is usual in general analysis. Due to this, there is a much greater need for reassurance which, just because of the relative absence of rational ego-forces, can at times only be satisfied by the most direct and elementary comforting contact, that is, physical touch.

As the drug is instrumental in producing a state of regression to a phase of development before the ego was strong enough to cope with the id-forces, it is obvious that the *contact by touch,* the only thing the patient can understand at such times, revives and represents (as *pars pro toto*) his first experiences of security in the physical embrace of the mother (if not, indeed his experience inside the womb), thus reviving the experience of the "primal temenos"* in a more direct way than is usual in general analysis.

At the same time—because of the proximity to the archetypal sphere—it is precisely at such moments that the transition from the personal to the archetypal (healing) experience can take place.**

To obtain needed reassurance it is, at times, not even enough for the patient to feel the analyst's hand touching him, but he himself may have to touch the analyst, or his clothes, etc.** In the regressed state into which he has been plunged by the drug, he has a new chance of experiencing the processes of co-ordinating sense

*G. Adler's term (following Erich Neumann's) for the primary state of mother-child relationship.

**See case examples.

impressions (including touch and the sensual experiences of his own body) with his emotional experiences (both old and new ones). In this way, a reorientation in his object relationships can take place on a level more archaic than that of language. Because of the retention of part of the patient's adult consciousness, integration may take place almost simultaneously. On the other hand, experiences of a predominantly archaic character may persist for a certain length of time; it is, in the main, the task of the analyst to find the right moment for breaking the archaic experience and integrating it, by interpretation or action, into the patient's consciousness.

Obviously not all reassurance through contact is representative of the mother-relationship; other early relationships, too, may be revived or re-experienced in a new light in this direct way (by skin contact), as will be seen from later illustrations.

There is another controversial point regarding the handling of the transference. It concerns the long time spent by the analyst with patients under LSD. This, again, is largely determined by the patient's greater need for the analyst (in his various roles), due to the sudden breakdown of ego defenses.

In discussions about the value or otherwise of treatment with LSD, one hears occasionally two arguments which, on closer inspection, seem to be mutually exclusive. The one is that LSD is too dangerous because it may "easily precipitate a psychosis"; the other is that the material produced under LSD is largely due to suggestion—particularly in hospitals where patients talk about their treatment and consciously or unconsciously try to conform, to produce what they believe is expected.

These arguments, if used in this unqualified way, cannot very well be true together; for the drug cannot both be so potent that it causes latent psychoses to become overt, and so impotent that it does not really touch the deeper layers of the unconscious at all and only produces results by suggestion.

However, partly due to the dosage, partly due to the individual ego-threshold of the patient, it is true that occasionally, either phenomenon could happen if the analyst were not aware enough of the part played by the transference. It is true that in near-psychotics it is probably the ego-representing function of the analyst more than anything else that checks the danger of lasting psychosis.

On the other hand, where suggestion does enter into the material produced under LSD, it is again, the analysis of the transference mechanisms behind it (e.g. the patient trying to "please" the parent-analyst, etc...) which can separate the genuine from the falsified; and in the very process of analyzing this, the transference relationship itself can be analyzed.*

However, contrary to some other analysts,[1, p. 505] the writer feels that this should be done in individual sessions rather than in "LSD Groups." The writer has usually discouraged patients from discussing their LSD experiences, not only outside the consulting room but also during group treatment. When occasionally LSD did become the subject of discussion in a therapeutic group session, the danger was felt to be threefold.

First: Though the danger of simple suggestion under ordinary circumstances may not be very great, there is a more forceful factor at work in group discussions of LSD. Due to the extraordinary power and fascination of some LSD experiences, the analysis of any member of the group may become greatly complicated—and his subsequent LSD sessions prejudiced—through contamination of his own unconscious contents with those of other group members, if LSD experiences are recounted and discussed in detail.

Second: Potential harm may come from the opposite direction as well. Through group discussion, the LSD experiences may, in retrospect, be shifted into the ego-sphere and become "encapsulated" there; they may take on the character of something "frightfully interesting" or sensational and, for instance, be subjected to competitive or other drives of the patient's egos, (e.g., the greater or lesser "beauty," "depth" or "originality," etc. of the differing individual experiences). Of course, this, too may be used as material for analysis, but the writer believes that, in the process, the LSD experiences may lose some of their essential values, which lie precisely in their pre-rational, symbolic and pristine character. Like dreams, they ought to be handled with care, not intellectualized or socialized.

Third: It appears to the writer that the transference situation is likely to become greatly confused by the simultaneous impact of two rather heterogeneous phenomena (LSD experiences and group-relationships) of which the one tends to introvert, the other

*See case material.

to extravert the patient's libido. For example, archetypal experiences under LSD may clash with almost simultaneously experienced problems of object relationships in the LSD group.

It follows from all this that the writer is also bound to *disagree with Sandison's view* that patients in LSD groups should either have no individual analysis at all, or should not be analyzed by the group therapist.

Doubting, for the reasons given, that group discussion is the right tool for the assimilation and integration of LSD experiences, the writer thinks that the danger is that unassimilated (or only partly assimilated) LSD experiences will remain like "undigested lumps," often charged with anxiety, in the patient's psychic system. The writer believes she has seen instances where such split off, anxiety-charged islands of very powerful unassimilated material left over from LSD experiences caused blockages against further psychological development.

The matter of *frequency* of giving of the drug is sometimes experienced as the giving or withholding of parental affection. This, too, can become a valuable tool in itself in the handling of the transference connected with problems of feeding and weaning. Giving and denying are thus experienced in a very direct and physical way.*

The general problem about the use of the drug is that of the value or lack of value of introducing physical experiences as "short-cuts" into the process of pure analysis and the interrelationship between them. The same problem is inherent in a previous paper of the author on the inclusion of "body experiments" in the analysis.[5] It appears to the writer, from clinical experiences, that all these short cuts, if used in the right way (that is, if consciously integrated into the analytical process as a whole), are not only permissible but may be even necessary, not only in view of the urgency of the problem of treatment of neuroses, but also because of those cases which would otherwise be regarded as "inaccessible" to analytical treatment.

Resistances and Defense Mechanisms Revealed In Patient's Reaction to Drug

It is usually possible for a patient to resist, to a certain extent, the effects of small doses of LSD. The writer believes that the

*See case material.

amount of resistance put up and the form which resistance takes can be revealing with regard to the patient's psychopathology, as well as to the transference situation. It seems, therefore, possible to use the study of amount and form in the analysis of the patient's defense mechanisms and resistances in general. For instance, many patients will not surrender to the effects of the drug unless or until the analyst is present. In fighting the drug, defense mechanisms, which play a part in the patient's make-up anyway, seem usually to became reinforced and thus made more clearly distinguishable for the analyst, and, if interpreted, for the patient as well.

In this way, the hysteric tendency to escape from unconscious conflict situations into physical symptoms (by conversion or substitution); or the schizoid reaction of libido withdrawal, can often be demonstrated particularly clearly in resistance against the impact of unconscious drives activated by the drug.

The most straightforward form of resistance seems to be that of the obsessive. In his case, the defensive character of his symptom seems to have undergone less transformation than in cases of schizophrenia or hysteria. This is probably the reason why, as has been observed before, obsessions respond particularly well to treatment with LSD. It almost appears as if there were not only a more direct connection in this case between the defensive function of the symptom and the warded-off tendencies, but also a greater readiness for the defenses to "burst" and allow the unconscious—and complementary—activities to come into consciousness. The reason for this may be that in obsessional cases a more closely circumscribed part of the personality is affected than in other disorders.

As for phobic states and anxiety cases, they would appear to be related to hysteria rather than to any other forms of neurosis in their reactions to LSD. However, more clinical observation would be needed to substantiate these tentative ideas.

B. Illustrations From Case Material

In selecting the following samples of case material to illustrate the preceding ideas, there has been an attempt to group them as far as possible according to the different aspects of the complementary factors involved in LSD experiences, which have been discussed. As, however, most of the examples given exemplify a

variety of aspects it is difficult to adhere rigidly to this kind of grouping, without referring at the same time to the other aspects involved, as well as to problems of transference.

Examples of Inferior Functions and Attitudes Coming into Prominence

One of the most frequently observed features in LSD experiences is the vividness of sense impressions. To the writer it would appear that this feature is particularly dominant in subjects who normally have rather poor perception (that is, persons who, in Jung's sense, have an "inferior" or "undifferentiated" sensation function).

Characteristic of this, was the experience of a professional man —an intellectual and intuitive type (or, in Jung's terms: a man with thinking and intuition as main functions)—who, during his first LSD session, was struck by the sensual impact of things in his everyday surroundings. Colors, especially yellow, appeared "unbelievably bright." On the other hand, this individual was horrified by the shabbiness of the paintwork and the tarnished brass on the house he had known for years. The sudden realization of sense impressions—resulting in elation about the appearance of so much golden yellow in his surroundings, and in depression connected with the sudden realization of shabbiness and decay—could be regarded as a typical way in which an inferior function (Sensation), linked with another one (Feeling), was suddenly brought into play to shed light on one of his major (metaphysical) problems. That was the threat made against the world of the Spirit (expressed in color symbolism as "golden yellow") by physical decay (shabby paintwork and tarnished brass).

Similarly Huxley, in describing a mescalin experience,* after stating that he had always been a "poor visualiser," gives many pages of description of the most vivid and detailed sensual impressions. He, too, in looking at everyday objects and works of art with this newly awakened capacity for receiving sense impressions, obtains through the senses a new understanding of the *meaning* of the picture or the intentions of the artist.

In a similar way the "meaning" of dance and movement as a "language of the body," equivalent to word language, had become apparent for the first time, to a professional woman whose main

*Huxley: The Doors of Perception, Ref. 4.

difficulties in her relationships with other people, particularly with men, had been her too-exclusive reliance on world language. Under LSD, she saw visions of dancing women (of various European cultures, in addition to Oriental); their movements partly resembled ceremonial activities, and partly expressed shades and nuances of human relationships which, as she realized for the first time, could never have been expressed as perfectly in any other medium.

As has been observed, sexual neuroses (perversions and obsessions) respond particularly well to treatment with LSD, partly because the drug frequently heightens the awareness of sexual urges. This in itself may have biochemical causes, but it seems that the particular form of the sexual experiences—or the fight against these—is determined by the "Type" of the patient and the stage of his psychological development.[9] Just as external sense impressions are experienced with so much greater vividness under LSD, so those of the body itself are frequently experienced with an amazing degree of differentiation by subjects who normally have only small relationship to their own bodies. However, corresponding to certain psychological situations, the body may also be experienced in a distorted way (see in the following, alterations of the body image).

The following examples, again, are meant to illustrate the compensatory and complementary character of sexual experiences under LSD.

Connections between Superior Functions and Sexual Drives in Two Compulsive Patients

A rather sedate middle-aged man, an introverted type, suffered from various compulsions, such as a need for checking and counter-checking (inability to close a book for fear of having left something in it, searching the floor for possibly lost objects, and so on). Further, he had an almost fetishistic fascination for women's shoes and provocative underwear, to the point where it had begun to wreck his marriage. He was shy and retiring, with a slight stammer. Thinking was his main function—his Sensation was rather poor.

The typical pattern of his LSD experiences was this: A strong activation of the sexual urge, coupled with visions of sex as the primal mover on all planes of life (expressed in images of a largely

archetypal character), was followed (usually toward afternoon) by speculation and attempts at integrating his visions and sensations into his conscious system of philosophical ideas and moral values. With regard to the transference, the main function of the analyst was to help him in the process of integration through understanding the symbolism of his visions, apart, of course, from the reassurance given by the "good mother" during the revival of up-to-then repressed sexual and masturbatory urges and activities. As will be seen, his experience can be viewed as the coming to life of his inferior functions (sensation and intuition). In this case, sensation was particularly closely linked with sexual repressions. Under LSD, they burst together into consciousness. Here are some of his reports of his experiences:

"Among the first reactions was one of shrinking to a smaller size... It was as though I was trying to draw myself up into as small a compass as possible... My breath was coming in long deep drafts as though I was undergoing great physical exertion. My bones felt supple and pliable, and I was perspiring. The next feeling was one of savage intensity. I felt like a wild animal with fangs bared, breathing heavily, snarling, ferocious and untamed. My arms felt like the front paws of a wild beast with claws. I had the feeling that here were the laws of the Jungle... the survival of the fittest as it were. It was as though I could sense, all at once, the whole of the primitive forces of nature. The fight for life itself and the continuance of it in procreation, with all the elements involved in this, the fight for survival against enemies; the fight for food; the fight for a mate and the protection of her and her young...

"Then there appeared a lot of female forms, swaying in a rhythmic, sensual way. Next the rather savage animal form returned. This time it was directly connected with sexual feelings. It was a feeling of a male animal, something like a stag, with a large herd of female animals, and one by one these female animals were held down with the front legs while the sexual act was performed. There was a rhythmic movement of the loins accompanying these feelings. This then changed to human form and I became aware of my own sexual organs in realizing that I wanted to pass water. There was again a completion of the sexual act with the female form clasped tightly to me in a rather savage, passionate way."

On a later occasion, this patient again had similar sexual experiences in the course of which he suddenly realized that his usual way of sexual intercourse with his wife was unsatisfactory (due to what he then felt to be the wrong position) and that he would have to reverse the position in order to experience the satisfaction characteristic for the male partner. This completely spontaneous discovery which had come to him with great force in that particular session, was, at the same time, linked up with the general problem of self-assertion. It crystallized itself in the following picture:

"I saw myself as a little cell on the ground. The whole world seemed to be trampling over me, and at one stage I was almost pushed down a sewer by the throng hurrying overhead. I clung precariously to the side of the abyss (a kind of grid it seemed), just managing to hold on as it were from total extinction, and my thoughts began to turn to considering what lay inside that little cell, I knew that if only it was allowed to open up and expand and take its rightful place in the world, there lay inside a wonderful power, a living mind with all the ingredients to enjoy life and participate in all its facets..."

It was after these experiences that not only did the patient's relationship to his wife change considerably, but his capacity for self-assertion in general was freed to an extent which, the writer believes, would without the drug have taken many months to achieve.

At another session he relived early shocks after some secret masturbatory activities when his fear of having been discovered by possible traces left behind caused him years of anxiety. The vividness of those relived memories by far exceeded those experienced in general analysis as the body-sensations of those past experiences had a quasi-hallucinatory character: The patient felt himself shrinking to the size of a baby or a small child and re-experienced the world as if with the body and the senses of the adolescent, just as he had experienced the Male within himself to the extent of actually "becoming" the stag or the male wild beast.

After those experiences, he spontaneously connected his obsessional need for "checking" with his sexual fears: that of not being able to hold his sexual forces in check, and his fears of leaving traces of masturbatory activities behind. He also recognized his stammer as a form of "checking" and holding back, again a sym-

bolic attempt at coping with his sexual problem, though this particular symptom was—perhaps even more so than the others—overdetermined. It would go too far to inquire into all the determining factors here.

His attitude of "holding back" had, in fact, permeated the whole of his character. He could not let go in any way, and his fear of being "discovered" had caused a general vagueness in his way of talking, a habitual avoidance of the pronoun "I" (by which he would have committed *himself*) and substitution for it of a vague and general "one" or "a person"—padded by many little expressions to safeguard himself, like an unnecessary "perhaps" or "as you might say."

All this was analyzed in connection with his LSD experiences. His inability to "let go" was overcome at one session when he discovered the following connections: His fear of not being able to keep his sexual forces in check had, at an early age, linked itself with a fear of bedwetting, urination at that point probably having been stimulated by, and partly substituted for, masturbation. The fear of his inability to check either sex or bedwetting seems to have led to a repression which had become so complete that, as a reaction formation, a fear of sexual insufficiency had ensued. It was this which he felt had to be overcome by the extra stimulus provided by high heels and especially provocative clothes. This whole complex became clear to him, mainly in the experiences of one particular LSD session. Here is his report of that day:

"As the drug began to take effect, I started to stretch myself out to my full height and to square my shoulders back. I filled my lungs with air and felt confident, self-assured and able to tackle anything without any hesitation. This sense of power then made itself felt in my sexual organs and my penis felt as though it was the center of this force. I saw myself sitting at a desk, doing various jobs and making decisions without any need for checking them. While I was doing this, an attractively dressed girl came into the room and stood close by. I felt that she was trying to distract my attention from what I was doing and to make me feel emotionally disturbed by her sexual charms. This did not succeed for I carried on with what I was doing with complete control and only when I had finished did I get up and go over to her.

"I then took hold of her, pulled her towards me and had intercourse with her. The vision I had of her while this was taking

place was as she had first appeared, in a fully dressed state. This happened several times, the girl being different every time. None of them were girls I knew. After this I saw a mass of colored lights. It was like a large control panel with a series of indicator lights all over it. These indicator or warning lights kept flashing on and off. I don't think I actually saw this, but I had the feeling that every time one of these lights flashed on, it showed a question mark. I thought that this was my brain and that each of these lights denoted a nerve cell. All these thousands of cells were asking the same questions: *Why? Was it safe? Are you sure?* Everywhere I turned, I was confronted with this question mark until I felt that I was hemmed in on all sides and could not escape. I felt that everything was unstable and that I desperately wanted to find something that was safe and sure so that I could have some anchorage and some firm starting point.

"I began to feel a desire for sexual intercourse again, but this time I felt unsure. I felt that I wanted to find a safe container for my semen. I wondered if I could trust the shedding of my seed into a chaotic and insane world. Eventually I could hold back no longer and had an emission of semen. Shortly after this you came in to see me, and, during our talk, I said that, although I usually felt that it was a sense of insufficiency which worried me, I could now feel that the original fear was one of having too much in the way of sexual feelings and that these had to be suppressed and held in check. You suggested that it was following on this suppression that I had eventually got to the stage that I felt that I hadn't enough and that I had found I needed extra stimulus in order to awaken my desires.

"After this I felt I was having intercourse again with girls who were all providing me with this extra stimulus in one way or another. I was conscious of their bodies from the breast downwards and they were all wearing underwear, stockings and high-heeled shoes. Suddenly I became aware that I didn't need this extra stimulus any more and that I could perform quite adequately without it. I felt that I was in complete control of the situation and that when I was ready I could let go my semen with complete freedom and safety. There was nothing to fear, and it could flow away from me unchecked. When this moment came I had a most wonderful feeling of complete freedom and relaxation. The semen

flowed away from me unhindered and with a sensation of absolute pleasure. There was no holding back, everything was let go.

"Suddenly I pulled myself up with a start and realized that not only was my semen flowing away from me but my urine was also. This brought back two incidents in childhood, round about the age of seven to ten, when I had dreamed that I was passing urine and that it was flowing away from me with complete freedom only to wake up and find that it had actually happened. After this I had always had a secret dread that this would happen to me again and that I could do nothing about it. This fear usually came to me when I was sleeping away from home in somebody else's bed. One of these incidents happened at home and I can remember my father explaining that there was nothing I could have done about it as it came in a dream. The other time was away at camp at the seaside and I kept this to myself and said nothing about it.

"The only other experience I had was when recalling the question-mark picture which I had seen earlier in the day. While thinking about the feeling I had had for the need of some starting point, I saw a stone slab with a cross at one end of it. There was a man kneeling down on this slab and I felt that this was the 'altar of truth,' the place where there was no deceit, no lies, no falseness or excuses. Was this my conscience?"

The question arises whether the accident of bedwetting that occurred under LSD could be regarded as an act of abreaction. To the writer, it does not seem that it was only the abreaction in the "temenos" of the transference, together with the understanding of the meaning and interconnection of his symptoms through interpretation which had the beneficial effect, but that it was the direct experience through the body—which was complementary to the patient's habitual way of experiencing life "in the head"—which gave an impact rarely felt in general analysis to the experience.

By way of contrast to this case, the second to be discussed is that of a very severe washing compulsion. In this case the differentiated function was sensation and the prevailing attitude extraversion. In the course of her analysis, and particularly under LSD, the patient was led into a greater introversion, and her thinking function became more conscious.

The patient was a young married woman with children, whose life and that of her family had become unbearable through her fear of contaminating others, mainly after touching anything that might have been in—direct or indirect—contact with lavatories, feces, or certain parts of the body. In this case, religious problems and sexual guilt feelings, social inferiority and the problems of death, old age and decay, had all been mixed up. There had also been incidents of infantile sex play and adolescent sexual curiosity—all of which had never been sorted out or understood by the patient, who had been a vivacious girl with rather strong sexual urges.

Under LSD, she had, on various occasions, seen images of writing projected onto the wall of the room. Parts of these writings contained either passages or half-sentences from the Bible, other parts were reminiscent of the rather cheap sexy literature she had indulged in as an adolescent girl. Under LSD, too, a good many childhood experiences had been revived, most of which centered around the clash between her mother's extremely narrow-minded moral outlook and her own sexual fantasies and activities. Physical sensations, stimulated by the drug and in conflict with her spiritual and moral problems, caused a great deal of anxiety. (This, she had managed to ignore before, by an exaggerated extraversion.) This anxiety, caused by the simultaneous experience of conflicting opposites (accompanied by physical sensations), subsided when her thinking function (symbolized as "writings") became activated, and she began to reconsider and to analyze her ideas and values. The role of the analyst in this case was that of the permissive mother, as well as that of the interpreter strengthening the inferior (thinking) function. The symptoms began to disappear when the patient understood them in their symbolical meaning (washing as attempt at *moral* cleanliness, and so on).

Alteration of Body-Image Transference

The next example is meant to illustrate how, through transference experiences as well as through the capacity of the drug to elicit early memories "stored" in the body, the body image may be altered, which, in turn, helps to "unfreeze" formerly repressed parts of the personality.

The case was that of a young man with severe symptoms of depression; depersonalization; attacks of mental blankness; mild

claustrophobia; and a general muscular rigidity, which showed among other things in a—literally—stiff upper lip (which caused his speech to be almost inaudible at times). Further, he complained of headaches and a "dead" feeling of the whole of his left side, particularly of the left side of his face. He had spent his early years with a psychopathic father who, in the end, had committed suicide. After that, the patient had gone back to his mother, a hard and very extraverted woman who, after her separation from her husband, had dreaded that her children might turn out like their father and freely gave expression to that dread.

The patient looked like his father. He was an introverted child who, after an unsuccessful period during which he had made an attempt at adaptation in an extraverted way, had begun to go into a schizoid withdrawal when he came for treatment. His mother's repeated statements that he was "just like his father" had eventually caused an unconscious identification with the father, so that his attempts to blot out his father within himself resulted in unconscious attempts to blot himself out as well (depersonalization symptoms and suicidal tendencies). His "dead" left side, as well as his general muscular rigidity, was expressive of his deadened emotional life. His functions of feeling and sensation had remained undifferentiated, as he had almost exclusively relied on thinking (mainly in the form of speculation) for access to life. This, however, had naturally reinforced his sense of isolation and thus, probably, aggravated his depersonalization symptoms.

His first LSD experiences were almost exclusively concerned with reliving the years spent with his father and the horrors attached to some of the events of those years. These had largely been repressed. After this, his relationship with his mother came more and more into prominence under LSD, as well as during the analysis in general, preceded by a brief spell during which his relationship with his sister was in the foreground. These periods culminated in sessions in which suddenly, through the transference, a violent breakthrough of emotion and sense perception occurred, which seemed to melt, within a few hours, the rigidity of years' standing. During the first of those sessions, the following happened:

He wanted most desperately to hold the writer's hand. When it was given to him, there were, first, all the signs of relief; then he began to feel the hand shrinking until it was the hand of a

small child—about three years old. In fact, it was to him the hand of his little sister from whom he had become separated when she was about three. When they were reunited, the sister was about seven and they had, in the meantime, led very different lives. Since that first separation, he had carried around with him the dreadful secret of his life with his father, about which he had not been able to talk before his analysis. At the moment when he held the writer's—that is, his little sister's—hand, he was able to pour it all out as he had wanted for years to pour it out to her and to share it with her. It was through the pressure of the writer's hand that he recaptured the memories of his early mental *and bodily contact* with this little girl who was his sister, whom he had loved and lost, and to whom, what he poured out to the writer at that moment, was in reality addressed.

On the morning after that session, he brought one of those little folded paper airplanes which, as he said, he used to make in numbers when he was at the age to which the LSD experiences referred. He told the writer that all through those years he had forgotten how to make them, but that, after feeling the writer's hand and talking to her as if she were his sister, the memory of how to make those airplanes had suddenly come back into his hands. (See "storage" of memories "in the body" p. 734.)

At the end of that session he wanted to hold the writer's other hand as well. For some minutes he held his hands, with the writer's inside them, on both sides of his head, so that a circle, like a closed circuit, was formed of his arms with the writer's. During those few moments he experienced a feeling of complete peace and unification of his left and his right sides which ordinarily he felt were split up by a dividing line right down his middle.

It was only after this that he dared, in the two following sessions, to let go enough to permit the projection of a mother-anima image to come into consciousness. Here are parts of his reports:

"Dr. C. comes in, she looks a bit stern—feel I've got to tell her what's going on but it's a great effort. Wish I could pull her inside me. When I can get myself to look at her she seems after a while to look very beautiful in a wise and understanding way. Am looking at every line and feature of her face... Want to tell her how beautiful she looks but feel very foolish. She smiles and seems to understand this... Wish she was my mother—I look away and see or rather feel what my mother is like—indrawn features,

and always gesticulating... begin to cry... Remember girl friends and women—looking into them and seeing for a tiny instant the simplicity and love which is behind them... Dr. C.'s face changes as I look at it—she's younger and I see her as a girl. ... Can see a broad bright background to her. It's like looking into a bright light..." (This was followed by fantasies of killing his own mother.)

The next report starts with descriptions of experiences of dances and colors; it continues: "When you came in my first reaction was to try to cover up these fantasies. This sort of thing happened anyway in real life, when I would be scared stiff that someone outside myself could read my thoughts... I looked across at you sitting by the bed and you seemed to be doing all sorts of things. First you'd float away in a yellow sea... then frowning at me, then laughing at me and I was thinking, 'Damn, you've got this drug in me and I'm completely at your mercy!' I wanted to pull out of it so I could get you under conscious control again. Then I began to think 'What's the use of that sort of thought—get her inside with you,' and with a bit of effort I stretched out my hand and you took it and sat on the bed.

"Immediately it changed. You looked friendly and I wanted to laugh. Suddenly I remembered lots of occasions when I've been with girls and my imagination used to take wings... Suddenly I wanted to laugh and say anything. I felt full of energy and wanted to take you and rush out on the sand and sea that I could see in my mind's eye. To go leaping all over the place and have a really abandoned time—the sort of thing I never experienced with either my father or my mother... because there was always this problem. Suddenly I wanted no longer to feel ashamed or guilty for being me... I just wanted to like being me and revel in being me, with no one to stop me being me... it felt fine..."

With regard to the first part of his report: the patient had, in fact, been staring at me for a number of minutes, with wide-open eyes and the expression of a child scrutinizing and studying a new person for the first time, wondering whether it was safe to trust. He kept scrutinizing every corner and every line of expression on my face, and I felt I had to present myself as it were without any protection or defense to his judgment. If I had contracted out of the direct encounter at that moment and hidden behind the mask of The Analyst, it would probably have defeated the

whole process. As it was, I had to allow a mental "photograph" of my personal face to be taken by the patient and I could only hope that what it expressed might be "sufficient" to serve as the reassuring mother he was searching for. This does, of course, not mean that the personal face would not be permeated in the patient's experience with archetypal features, yet there was at this moment, through nothing but the medium of facial expession, a directness of "question" and "answer," which, due to the more deeply regressed state of the patient, was more intensive than that usually experienced in pure analysis.

After this, there followed a period during which he alternatingly looked at me and stared at a vision of his own mother—obviously also with archetypal projections. Whenever he stared at that image his face tensed up and showed an expression of pain and even horror. Groans and exclamations of despair alternated with outbursts of hate and fantasies of killing her. Then back to my face again and renewed studying of every feature, with the liberating of little laughs and relaxing of his whole body.

This instance, especially the detail of the "interpenetrating gaze," resembled that cited by Moodie in his paper on countertransference (which, however, came to my knowledge only long after this incident had occurred).[19] It is perhaps also characteristic that my case was that of a deeply regressed patient in whom processes were at work similar to those in children, who, as Moodie also remarks, "encourage the spontaneity of the analyst..." In this case, too, it was probably the fact that I had "offered" myself for judgment without any defense, and with a good deal of doubt whether my face would be found "sufficient," which reassured the patient enough to lead him to come out of his reserve and to free himself from the grip of his negative mother image (expressed in a loosening of his muscular rigidity). I had to look back at him and allow my face to express exactly what I felt at the moment which, if put into words, might have been something like this: "Yes—this is me—with all those human weaknesses which may have left traces on my face—I can only hope that it will suffice, all the same, to represent a human face that can be trusted..."

It was after those two sessions that his left side came to life. It stayed alive for several weeks; but it was very obvious how, in the daily contact with his mother, he gradually became tense

again. However, with continued analysis and some more LSD experiences of a similar, though less intensive, character, his mother-anima problem gradually solved itself. With that, his left side had finally come to life, and he felt free and relaxed.

Projection of Archetypal Images and Transference

Symbolism indicating the transition from the personal to the collective sphere. An interesting phenomenon which the writer has observed on various occasions is the sudden *projected appearance of an archetypal image behind a personal memory* which itself had been recaptured and relived in the more or less hallucinatory way characteristic of the LSD experiences.

Here is an example. The case is one of an unmarried woman in her early 30's who had come to the hospital with severe depression. In the course of the treatment, strong paranoid tendencies had become apparent. The transference was strongly ambivalent, and during its negative phases it was usually coupled with paranoid reactions. During such phases the patient became wildly hostile and aggressive. She distorted and misinterpreted what was being said or done. During her "sane" periods, she was extremely "sane," and nobody would have suspected psychotic tendencies. Facts from her history: a possessive mother, a rather weak father, sibling rivalries—in particular with one brother who, in fact, had had many privileges over the patient. Accordingly, there was an ambivalent relationship of the patient to her mother who, even in earliest dreams had appeared as a monstrous crab and someone who constantly stood between her and the men's world. Under LSD, religious experiences, which left the patient elated, alternated with experiences of utter misery. Often there was a quick succession of the two types of experience, even in one session.

One morning, about an hour after she had taken the drug, the writer found her in a room out of which she had thrown all bedding and all furniture with the exception of one chair. She was sitting on her bare bed, trembling, with a face distorted with fear, hatred and horror, begging me to leave the room as otherwise she was sure she would strangle me. She also kept repeating, as she often did under LSD, that she must take her own life. She then fell to the floor and said the floor boards were sloping. Mixed up with a genuine hallucinatory experience there was some hysterical exaggeration which, however, disappeared after interpretation.

Here is part of her report:

"It began by my feeling myself growing smaller. I was in a small, strange room, I did not know where. Then I felt I wanted to strangle someone, and when the nurse came in I wanted to put my hands round her throat and squeeze the life out of her. Next I wanted to strangle myself. After she had gone, I strongly felt I must tear everything up. I got a blanket but could not tear it. Then I had the idea that I must get rid of all the things in the room, so I threw out the bedclothes and all the things I could move. I could not even bear to see the flowers on the dressing table, and I wanted to tear up the calendar and the picture of the dog. I just had to get it all out of my sight. I wanted to go into the office and tear everything up. Somehow, a chair was left in the room . . . suddenly I was so furious that I caught hold of the chair and threw it. I wanted to smash it. Then Dr. C. came, and while she was talking, I noticed that the floor boards were slanting. I remembered that the floor boards in the small bedroom in the cottage [her childhood home] slanted.

"Then the chair began to change and I saw that it was the one that my father had cut down for my mother to nurse my brothers in. I also remembered it used to stand in the corner in the boys' room where I kept my toys, and I used to be frightened of it because I thought a witch used to sit in it. I afterwards felt I wanted to smash everything, and again later I wanted to tear things up and I prayed that nurse would come and bring some papers so that I could just tear and tear. It is certainly an enlightenment to me to realize that a little child could feel all these things and keep them hidden inside himself, but it was also a great shock to me when I threw the chair, but I realized that I had indeed felt this dreadful anger as a little girl but had never really known about it and certainly not let it out.

"Later . . . I saw my mother driving the sheep down the lane, and I saw a full-sized bear walking among the trees and peeping at me. I saw a wood where the trees were growing almost trunk to trunk and the ground was covered by undergrowth. Then the wood appeared again, but this time someone had started to clear away the undergrowth and also some of the trees, and it came to me that LSD was used to build up as well as break down." (She means it the other way round.)

In this experience collective images, mainly of the Mother-archetype, emerge behind, or just after, her memory of her real mother in the nursing chair. The wood—the trees—the bear—the witch. The witch was actually seen, sitting on the chair in the clinic room. On another occasion, the image of the bear was projected directly onto the Analyst after the patient had experienced "deep longing" for her mother:

"I just felt that I wanted to climb upon her knee... I grew very small and wanted to nestle close to her but realized I could not... the longing for her became more and more urgent until I felt I would have to go to her. I later began to feel that I had got to commit suicide. When Dr. C. came, she looked like a big brown bear. I also remember feeling that I would either have to do away with my mother or myself."

In the first of these examples, the bear was comparatively friendly, and light had begun to penetrate the wood, a result, probably, of the analytical work done in connection with her mother-fixation. Yet there was then no straightforward development "out of the wood." That was going backwards and forwards for a long time. Feelings of jealousy of other patients (brother projections) and feelings of inferiority on her part kept surging up.

The following quotations from some of her reports exemplify how certain archetypal images changed their meaning for the patient during an LSD session through the impact of the transference, so that, within seconds, images assumed a positive instead of a negative character.

"I began to feel that I was lying at the bottom of a pit. I felt that rubbish was being thrown in on top of me and I had to fight my way out."

I suggested that she should stop fighting and I reminded her of the story of Joseph, thrown into a pit. She then relaxed and again experienced a feeling of growing small. Then she heard the ringing of a sawmill saw, and then remembered that she was born near a sawmill. "As I lay, I had the growing conviction that I was going to be born and that it was absolutely essential that Dr. C. should be with me." She then felt that she was "attached to something by a cord, and I could feel my limbs beginning to swell, then I began to feel that life was flowing into me and that I was fed by this cord. I was not actually born, but the feeling

I had was that, if I could retain this feeling, I could ultimately break away from my mother . . . and that people would have to accept me and my ideas instead of my always trying to conform to theirs."

And here is another occasion where, through the transference, an experience of horror became transformed into one of *integration during the LSD session.* At the beginning:

"I felt I must run away and kill myself . . . I felt I wanted to jump off a cliff . . . then I wanted to smash my way out through the window, and Sister locked the shutters. I begged Sister to leave me and lock me in so that I could bash myself to death. I felt inferior, inadequate, and felt that there was nothing worth living for, and there also came a fear of men. I remember Dr. C. coming and telling me to lie down and just let things come. While she was with me, I felt that something was coming from her into my body and that it was giving me strength. . . When my eyes were closed I felt that there was a room inside me, with red plush carpets and dark red velvet cushions and something inside me went into this room and rested for a while."

As the pit had turned from a place of utter humiliation into an archetypal "womb," so her inner storm center had turned into a center of stillness. In both these instances the presence of the analyst as the "good" and "nourishing" mother had still been necessary; later it was the process of introversion, with or without the actual presence of the analyst, which provided the "womb" inside which rebirth experiences could take place.

In this way a pattern, frequently repeated under LSD, had evolved for this patient. She used to start the day in a panic, with frightening pictures projected onto the walls, the furniture or the people around her, and moods of paranoid aggression or abject depression. If then she succeeded in letting go—and by remembering experiences like that of the changed character of the pit—adopted an attitude of "giving up fighting" (which under LSD she could do much more easily than at other times), these moods were usually followed by images similar to that of the "inner room." There were inner gardens of great beauty, caves into which a light was shining, fountains inside herself, or experiences of "God coming into her," these last usually connected with perceptions of a golden light or with sudden feelings of "a great love" taking hold of her.

Once she saw a cherry tree "standing alone in the middle of an orchard."

"It was a most beautiful shape and covered with white blossoms. After a while I felt a bit of anger creeping in, and as I grew angry the trunk of the tree became misshapen and the blossoms started to drop. I lay quietly and after a while the feeling of love surged over me again and the tree began to grow straight and the blossoms grew profuse again. Sometimes the room changed color... I noticed that these colors had something to do with the way I felt at the particular moment. Mauve seemed to indicate love; green, hatred; and gold seemed to me to indicate reverence and humility (like feeling that I was in the presence of God)." (See Huxley's observation[4] on the quality of LSD experiences as "Heaven" or "Hell," according to the psychological state of the patient.)

These experiences seem to illustrate the capacity of the drug, not only to facilitate the emergence of complementary unconscious material, but also to help to bring about a reversal of "attitudes" (in Jung's sense) in the service of compensation and complementation. In this case the patient's need was for introversion. Granted this, her intuition could be turned from paranoid (extraverted) constructions ("*they* are plotting against me") to genuine spiritual (introverted) experiences.

From her history, it would appear that the patient had been an introverted child who, under the influence of her family, had tried to train herself in a (secondary) extraversion. In the beginning of her treatment, her LSD exeperiences had largely been inner images, frequently projected, the symbolism of which was often surprisingly evident to her at the moment. (At other times, however, the symbolism had to be worked out in subsequent interviews and linked up with dreams or active imagination.)

Contrary to the first examples given, the external world, in her case, became unimportant under LSD and served almost exclusively as a "screen" onto which to project her inner images. Colors, too, were attached practically exclusively to inner images and became immediately meaningful to her for their symbolic value.

LSD, by reinforcing introversion (initiated through analysis anyway), brought her up not only against her own, previously unconscious, aggression, hate and jealousy (stemming from child-

hood experiences); but it also evolved archetypal (healing) symbolism through which her psychotic tendencies could be overcome.

However, she was one of those cases (mentioned previously) whose tendency to turn genuine spiritual experiences outward and use them in the service of their neuroses had to be watched. Thus, her "deep experiences" were often used in the service of her striving for superiority. One had to be very much on one's guard with her to prick the inflationary bubble in time. This usually caused increased hatred and paranoid aggression, and generally initiated a phase of negative transference which, in turn, had to be analyzed.

Another feature mentioned previously, which was particularly striking in this patient, though the writer has found it in others as well, was the fact that the drug was unconsciously experienced by the patient as equivalent to "mother's milk." Consequently, frequent sessions with the drug were felt by her as proofs of love; weeks without the drug were felt as deprivation which, on various occasions, produced reactions of strong hate and of paranoic constructions. This, too, was used as material for analysis. In this way the drug, more or less inadvertently, served a secondary purpose, in that it became an additional means for the patient to experience her own infantile reactions to gratification and deprivation, as well as her own, gradually growing, frustration-tolerance.

Crises like those mentioned demonstrate again that the main value of the drug lies not so much in its capacity to facilitate abreaction as in its capacity to produce more varied and more drastically experienced unconscious material for analysis.

While, during the first part of her analysis, personal memories and archetypal experiences were predominant, it was only at a later stage that this patient could begin to realize her deficient relationship to her body as one of her major problems. This, of course, was closely linked with her sexual problems and her deficient relationship to her mother, resulting in a deficient relationship to herself *as a woman*. In this process, too, LSD assisted in bringing complementary forces into play, partly by sensitizing regions of the body which, before, had been "dead," but also by allowing easier access of unconscious symbolic imagery into consciousness. During several of her first LSD sessions she had seen an image of a woman's face, the right side of which was very beautiful, whereas the left side was a dead and shapeless mass without a mouth, an eye or a proper outline. As her awareness

of her body grew, the left side of that face, in another vision, had been molded into shape. (Also, see the previous case.) At the same time she experienced, also under LSD, a sudden sensation of "unity between head and body," upper and lower half, a problem which her analysis had touched upon, on various occasions before, but to which there had been an extraordinary resistance.

Physical sensation and symbolic vision elicited by the drug, together with analysis and "body experiments," seemed to prove particularly helpful in this case—as indeed they seem to be in all cases where the sensation function is far removed from consciousness.

Transference, Resistance and Acting Out (with Special Consideration of Hysterical Mechanisms)

As was mentioned before, it appears that, under LSD, the tendency of the hysteric to evade attempts at consciously facing his problems, by producing or magnifying physical symptoms, becomes particularly obvious. Physical effects produced by the drug, and largely ignored by *some* types of patients may become almost the only experience the hysteric realizes, overshadowing practically all psychological changes, and serving, in this way, as a particularly suitable means of expressing resistances. The writer found, for example, that headaches, feelings of nausea, restlessness, etc. which frequently accompany early LSD reactions anyway, made LSD sessions almost useless with a number of hysterical patients, unless or until, through persistent analysis, the patient could accept his reactions as resistances and work through those. The writer seems to have found these reactions so consistently in hysterics, that it almost appears possible to use LSD for diagnostic purposes (for example a differential diagnosis between hysteria and schizophrenia).

The following case may illustrate some aspects of hysterical mechanisms as shown under LSD.

The patient was a middle-aged married woman whose main symptoms had been sporadic depressions, various fears and uncontrollable tempers; she also suffered from frequent headaches and psychogenic fatigue, and there were marriage difficulties, mainly due to her partial frigidity. When she began her analysis, one of the most striking features of her personality was a certain lifelessness, dryness and lack of spontaneity. During interviews,

she found it difficult to talk; her usual reaction was: "There is nothing to talk about." Whether this was due to flattened affect or to tension was not easy to decide at first.

The main "theme" of her analysis was conveyed, in a characteristic way, in one of her initial dreams, in which running water was being installed in her room. Yet it was only after a good deal of work with pure analysis, LSD and "body experiments" that the potentiality anticipated in her dream became reality: that is, that her personality became "free-flowing" and "alive."

She was one of those patients with whom, under LSD, headaches, feelings of nausea and restlessness became the predominant experiences whenever unconscious aggressions, resentments or infantile impulses of one kind or another were approaching the threshold of consciousness. These experiences were usually closely linked with the transference. They served as a means to get the doctor or analyst to her bedside, and served as an expression of resentment when she considered the intervals between the analyst's visits to be too long. These symptoms usually subsided quickly as a result of interpretation. (This was that the analyst's absence was felt as a sign of rejection and neglect, reviving early childhood experiences of—presumed—rejection and neglect and so on.)

However, even during some of the first of her LSD sessions, her usual "flatness" and lifelessness gave way to very violent feelings of hate, love and despair, expressed in sobbing and a sudden pouring out of her troubles in the form typical of abreactions. It turned out that her feelings for both her parents, as well as for her brother and her husband, were highly ambivalent. Of course, the transference was also, though the positive trend was the stronger one throughout; this, too, seems to be characteristic for hysterical patients—as distinguished, for example, from paranoid ones.

One of the main outbursts occurred when she remembered that the only thing she was noted for as a child was "being intelligent." She also was always "good," in contrast to her brother who always "got his own way." But she had hated both being "good" and being "intelligent." When asked what she would have wished for instead, she said, "Being cuddled." Revived memories under LSD brought out her strong mother fixation, her guilt feelings because of early sex play, with resulting ambivalence toward sex, her craving for satisfaction of her intellectual needs, which her hus-

band did not understand ("he never talks to me"), as well as her repressed emotionality and sensuality.

With this set of circumstances, it was not surprising that the transference should be rather violent, with a strong urge on her part for physical contact and acting-out generally. When her claims on the analyst were not immediately and completely satisfied, she reacted in either of two ways: She either went into a flat numbness or went into violent and often extremely histrionic outbursts. She would "want to kill" me, actually putting her hands around my neck, and trying to order me about: "Don't leave the room—if you do I shall come with you!—Don't leave me—you *are* my mummy, aren't you? Do you love me?—I want to see your ring—give it to me! [What if I don't?] Then I shall jump out of the window."

On one of these occasions—during an LSD session when she had commanded me, first, to give her my ring, then to let her handle my skirt (criticizing its cut and material) then to pick up a few things she had dropped and to fetch a few others—I asked jokingly: "Any more orders, madam?" At that she broke down in desperate sobbing followed by a deep sulk. No more material was produced for the next two weeks, but instead the whole series of physical symptoms appeared.

During most of the next LSD session she was lying in a half-sleep, and at one of the following sessions she developed what might have appeared to be an aphasia but was, in fact, a histrionic exaggeration of a numb feeling around the jaws, a common reaction to the drug. At one session, I found her jumping up and down on her bed like a two-year-old child. She said she enjoyed that and was keen on my watching her.

At another session, she suddenly declared she wanted to dance. She got out of bed and began first to sway in all directions, then to swirl around in circular movements in a mixture of self-display and gradually-increasing absorption. In the end, she let herself fall to the ground. Here is her report of that session. It began like this:

"I feel so sick. I wish they would stop making that noise. My head is being pulled from my body. I have no use in my hands. Something is pulling me around. What the hell is happening? . . . I'm not writing this, someone else is. I'm just looking on. I can't stand it much longer. Where is Dr. C.? I feel so sick. . . . I seem

to be emerging from something. I feel very sick. My head... Why do I always feel so sick? Where the hell is everyone? I feel cold and hot. What am I talking about? What am I waiting for anyway? Why should I be in here like this? Where is everybody? I can't stand it. Why doesn't someone come? I must go home. What a lot of rot. I feel sick."

The interpretation seems obvious. Most of the sensations mentioned are rather frequent experiences under LSD, due to physical changes in the organism. As a rule, they are more or less ignored by patients. In this case, however, as in other cases of hysteria, they receive the main emphasis. Their close link-up with feelings of anger, neglect and desertion (as shown in the patient's report) colors the whole experience, so that the physical symptoms appear to become more than just physical phenomena carefully registered. They appear to become an expression of the accompanying emotions themselves: feeling cold with neglect; hot with anger; sick of the whole business and of herself in her neurotic state. Headaches (one of her usual symptoms) again become emphasized as a result of anger at being left alone. There seems also to be a dim awareness of the spuriousness of her feelings in expressions like "a lot of rot." "Wanting to go home" would imply "to a better mummy" and so forth. It appears that here one can observe, as it were in miniature, the mechanisms behind conversion symptoms generally.

The report continues:

"Then Dr. C. came in. I stood up and began to feel myself being pulled round and round in a circle. I did not want to sit in a chair or lie down, but just kept being pulled round. And then I had to fall to the ground. It was a lovely feeling. I never wanted to get up. I sat up, and Dr. C. wanted me to sit in a chair but I preferred the floor. I then started to think about jelly and I began to giggle. I felt just like jelly. Then I remembered we used to sit under the table and hide things under the ledge... Then I mentioned Sonny and I got very upset about him being called son and me not called daughter. After Dr. C. had gone I felt as though I had got rid of something and felt much better."

Later, she reported: "The feeling I had of going round and round was really wonderful, and when I fell to the floor I felt so peaceful. I never realized I had such a strong feeling about my brother being called son. All this time I must have had this feel-

ing bottled up inside me. . . . The beginning part of the LSD was so frightening. . . but when I seemed to emerge from something I felt quite different. . . I had lost all my aggressive feelings. . . I was quite happy when I arrived home. . ."

Immediately after that LSD session she had the following dream:

"I dreamt I was taking my husband and two other people to a place I have been before in my dreams. We walked past the pile of coal. . . There was a door and it opened. . . and a black man stood there. He said we could not go in unless we had some money. We showed him what we had but it was not enough. . . . We were sitting at a table when a gray-haired man came up and asked me to dance. [My husband] said it would be all right. We went off and started a most fantastic dance. It was very exciting and in the middle of it the man took me outside and we had intercourse. I reached the climax very quickly and we went back again and I was hoping he would ask me for another dance but I woke up."

What the series of events (LSD session and subsequent dream) seems to show is this:

It appears possible to conceive of hysterical mechanisms (conversions as well as histrionic behavior) as unsuccessful attempts of the repressed infantile personality to break through a false and insufficiently adapted adult "persona." Overdramatization of aches and pains, as well as of emotional states, are appeals for help by the infant who, due to experiences of guilt and rejection, had imprisoned himself behind the protective walls of pseudo-adaptation, in this case combined with "flatness." As in all forms of neuroses, the initially protective wall is being felt increasingly as a bar against the loved object. Whereas the schizophrenic seems to have given up the attempts at breaking through the wall, and the phobic feels threatened by it, the hysteric seems to try to break through by force, realizing at the same time the inadequacy of his means. The more he feels that his actions lack conviction, the more dramatic he has to become in his search for contact with the barred-off love object, but the more (falsely) dramatic he becomes, the less he will be believed.

Again, as in the previously mentioned case, it seems to the writer that physical contact in a state of intensively experienced regression—under LSD this patient frequently spoke a kind of "baby language"—can be of great help, provided it is used in con-

nection with interpretation. This patient seems to have gained immediate help from feeling my ring, my clothes, my hand, and from partly acting out her aggressive as well as her love impulses before she could understand them rationally. In her dance, she achieved three things: First, she encircled the analyst (mother), making sure of her presence; second, she began to circle around her own center. In that way, for the first time, she made the step from histrionic self-display to self-collection (an attempt at mandala). Third, in falling to the floor she experienced an attitude of surrender and of giving up the violent attempts at "breaking through." This seems to have prepared the way for the subsequent dream: the dance with the animus after the "door" had opened and she had become aware of her own resources (the pile of coal before entering the door). This as well as the "black man" was connected with her awakening sensation function, for which there was, however, not quite enough money (libido) available at that stage. Shortly after this, she had successful sexual intercourse with her husband.

It might be worth mentioning that the dance-experience had been preceded, also under LSD, by experiences of "being born," "learning to walk," and slipping through small openings in walled-off rooms on a number of occasions. The attempt at "surrender," too, had had an unsuccessful forerunner in a pretended suicide attempt, in which she had taken a very small dose of drugs but pretended to have taken a large one. It seems, again, to have been the direct experience in the acting-out of unconscious infantile content through the senses—in connection with analysis—which had at least speeded up the process of recovery.

The capacity of the drug to bring out particularly relevant compensatory factors was apparent in this case, in the emergence of violent feelings of love and hate, as well as of a repressed but very strong sensation-function, in a patient who had been "too intelligent" and "too good a child."*

Some Remarks on Counter-Transference

The question which inevitably arises is this: Just how far should the analyst permit "acting out" under LSD? Compared with gen-

*It might be said that her tempers had been similar, but unguided and therefore, unsuccessful, attempts of the unconscious at "breaking through," just as her physical symptoms had been unsuccessful and perverted "attempts" of her sensation-function to "assert itself."

eral analysis, where is the difference? Also, might patients not use the drug as a conscious or unconscious "excuse" for assaulting the analyst or nursing staff, possibly even to the point of danger? For an example, what if a patient should try to embrace the analyst or proceed to attack him (or her) sexually? Patients, particularly if they have previously heard about the effects of the drug, may easily either deceive themselves or get the impression that they are not only allowed but almost expected, while under the drug, to give way to their urges, as otherwise no curative purpose would be achieved.

It appears to the writer that the answer to these obviously controversial questions may be this: Because of the regressed state of the patient under the drug, a greater amount of "acting out" than in general analysis seems not only permissible but therapeutically desirable. It is comparable in some respects to play therapy in the analysis of children. On the other hand, it usually seems possible, even while the patient is under the drug, to lead him to realize the "reality" of the situation without feeling rejected.

Thus the process of the patient's gradual acceptance of "denial," inherent in the analysis of the transference, but normally spread out over a longish period in general analysis, may be experienced in more condensed form in LSD treatment. Of course it is necessary to work through such experiences in subsequent analytic interviews. However, it appears that, in working with the drug, an awareness of the counter-transference is particularly necessary. It seems especially important here for the analyst to "listen with the third ear" and to be guided by his own intuition (Plaut,[7] Moodie,[10] and Kraemer[11]). Being aware of the complexities of questions of transference and counter-transference, the writer wonders whether, without gross oversimplification, it might be said that, in trying to steer the right course between denial (due to the reality principle) and gratification of the patient's needs, something like a compass at the disposal of the analyst may be found in his own feeling of what is "*genuine*"—in the patient's demands as well as in his own response. It seems to the writer that, especially in critical situations under LSD, by genuinely responding to the genuine in the patient, the analyst responds not only to the previously repressed "child" in the adult patient but also evokes the (maturer) adult in that "child," i.e. in the regressed or fixated adult.

Function of an Archetypal Image in a Case of Moral Deficiency

The archetypal image described in the next example is meant to show how, in a particularly drastic form, the moral problem came to the fore under LSD in a previously morally deficient patient. She was a young homosexual girl who had been violent on various occasions. She had grown up as a typical victim of the afterwar years, one of a gang of rather unscrupulous youngsters. Her father had served prison sentences on and off for housebreaking and "fighting"; her mother seems to have had an intimate relationship with at least one other man.

The LSD experience throws light on the interconnection between her moral problems (violence, etc.), her homosexuality and her parent problems. It is, again, because of the drastic form in which complementary aspects of the personality were brought out by the drug that this example is being cited.

The patient and I had, on several occasions, touched on questions of good and bad, and more particularly on the question of violence; and I had been discussing, with her, atomic power as a force for either good or evil. Shortly after this, she had the following LSD experience: She saw Stalin projected onto the wall.

"He was kneeling on his left knee and he had his right foot just ready to take a step down. In his right hand, he held a dagger. In his left breast pocket, he had a sparrow and there was a faint light; but on his right side it was black. Satan was near his shoulder in the form of a closed hand; and the first finger was pointing down; and on the hand, just above the pointing finger, was a sparkling eye, glittering as if trying to attract his attention. But poor Stalin couldn't decide whether to take the easiest way out, which is hell, or to take the hardest way and work himself to heaven."

I suggested she should send the sparrow out and see what would happen, but nothing did happen (an example of the small influence of suggestion on LSD experiences). On my various visits to her room during the afternoon she kept repeating, "He can't decide—Stalin can't decide—I have told him that he must decide for himself, that I can't decide for him, but he can't decide. Perhaps I should decide for him, but they won't let me. [Who are "they"?] The women in the ward." In the end, after about six hours of sustained, though schizoid, fighting with the devil, she declared,

"Stalin can't decide yet, so I had to decide for myself. I want to go straight. I think I can go straight." And then she asked for reassurance from me whether I thought she would go straight.

On a previous visit to her room she had asked me, "You are my mother, aren't you?" And when I left her for the night, she insisted on kissing me. Her kiss was that of a small child. The next morning she wrote a happy letter to the woman with whom she was in love at that time, telling her of her decision to go straight.

Her associations to Stalin were these: First, a rather tough man, a Mr. — with whom her mother had lived and who, like her father, had served a prison sentence "for fighting." It seems that her mother had had a child by him, one whom, however, the patient had never seen. It seems, though, that the patient had overheard sexual intercourse between her mother and Mr —, also that she had seen him hurting her mother, and that she herself had been hurt by him when she tried to intervene between him and her mother. So he definitely is represented by the devil side of Stalin. Of her own father, she used to speak with tenderness in spite of his criminal offenses; and of Stalin she said: "He is the Father of Russia. He can look after his people all right, but he cannot decide for himself." She said that at first she had believed the picture she had seen on the wall was that of Hitler, but then she knew that it was Stalin. The reason for this is probably that Hitler could not carry the projection of her ambivalent Father-image. The bird would have no place in the figure of the arch-enemy Hitler.

The eye on the devil's hand would symbolize a first glimpse of awareness of the evil quality of the patient's own hand, inasmuch as it is her main instrument for violence and destruction, repeated in the image of Stalin's hand which carried the dagger. This, at the same time, is the symbol of masculine aggression in her Father-image with which the patient had identified herself—becoming the Father, that is, the Mother's husband. By adopting the masculine role, she could, first, identify herself with the male of the species, which would prevent her from being helplessly exploited like Mother. Second, she would be the "good" husband to "Mother," that is, a Mother substitute (note her homosexual tendencies). Third, she wanted to realize the good Father in herself, but was, at the same time, fascinated by the bad one, whom she had known in reality. The fact that the women in the ward did not let her,

or Stalin, "decide," shows her ambivalent attitude toward the Mother, as well as toward her own feminine role. The glittering light in the devil's eye shows strong fascination by the negative aspect of the Father-image—the "evil eye" of the black magician.

What, to the writer, is important about this experience is not so much its immediate curative effect; in fact, the patient relapsed after it on several occasions and the treatment did not even remain in the writer's hands—but the fact that once, and perhaps for the first time in her life, moral values presented themselves in a symbolic, and therefore acceptable, form to this girl. This experience shows clearly how, behind the personal memories, the archetypal images are, as it were, lying in readiness, as if only waiting for an opportunity to be projected, and how, through the drug, those "projections" can be perceived as such in the literal sense.

Example of a "Cosmic" Experience

To conclude, here is an attempt at presenting the experiences of a professional woman who, under LSD, discovered the world of the nonverbal or pre-rational and who, in describing her experiences, was acutely aware of the difficulty of putting them into the form of language. The nonverbal world, that is, the world of pure imagery, and the world of language were felt to be two completely different systems which were not only mutually exclusive but which also largely invalidated one another. Looked at from the system of language, the other system appeared as "just" an "interesting state of mind," artificially induced by a drug, the characteristic feature of which was an altered and slightly "psychotic" mode of experiencing the world.

However, from the point of view of the pre-rational system, the one of language and rational thought appeared as an unbelievably shallow, superficial and one-sided mode of experiencing the world, superimposed on, but missing the essential factors of life. Truth, so it seemed, could only be found inside the nonverbal system whereas the system of language and scientific thought appeared, from that point of view, to be an incredibly poor and deceptive attempt at understanding the essential.

The most impressive feature in the experience of the nonrational system was the disappearance of all boundaries between individual entities, or, indeed, the disappearance of individuality as such. Instead, identity and correspondences were the dominating features.

In this way, the meanings of certain musical phenomena (rhythms, intervals, etc.) were felt to have their exact equivalents in certain tensions or experiences of pressure, movement or position of certain parts of the body; but the body would also have a complete correspondence to colors or moods, or landscapes, or plants, or animals. The feeling was as if certain (definite) parts of the body had the same character as certain (definite) landscapes, or continents, or kinds of vegetation, whereas other regions of the body would "correspond to" or "represent" other geographical or biological spheres, or historical periods.

The tiniest alteration of the position of any part of the patient's body was experienced as an adventurous journey from one continent to another. Again, parts of the body of a child were experienced as identical with plants or flowers (a baby's lips *were* apple blossoms; they were not merely *like* apple blossoms); or, slightly more rationally expressed, the parts of the child's body and the plants or flowers were two aspects of the same (cosmic) "idea." The act of intercourse was, in its essence, the same as (not *like*) a musical chord. There was an overwhelming experience of what the patient called the infinite number of "facets" of the Universe, all of which were alike and different at the same time; and it was man's task to discover as many of them as possible—an endless task but boundlessly fascinating. These "facets" were scintillating and were at times called, or seen as, a "kaleidoscope," but they were also the many prisms which formed a ball-shaped chandelier, glowing in all the colors of the rainbow.

At another stage, there were people around her; she saw them talking, but the *contents* of talk appeared at that time entirely unimportant; instead she felt able to a degree unknown to her in her "normal" state to "know" in a direct and immediate way what the other persons felt or by what they were motivated. A smile, a movement, or a certain line in a face became all-important, so did a silence; talk or even discussion appeared as almost ridiculously shallow. Last, there were experiences of the impersonal (archetypal) aspect of herself as a mother ("I *am* all mothers"—"I feel the feelings of *all mothers*"), or an experience of "getting old" ("I am *all* old women—I *am* the anonymous earth from which things have grown," etc.). There were periods under LSD when there had been nothing but an experience of rhythmic tension and relaxation, in which rhythm had been felt to be the only reality of

life—rhythm of breath, of heartbeat, of music and of orgasm—rhythm of movement of all creation—it was all ultimately the same, and the only thing that seemed to matter was to fall in with the rhythm required at each particular moment, and to play one's part in maintaining it. This alone seemed to be life.

As in the previous illustrations, the drug had brought out complementary factors in this case, too. A woman with a predominant thinking function had, at least momentarily, experienced life through her normally less-differentiated functions (sensation, intuition and feeling), with the resulting experience of wholeness and of being part of the unity of all creation.

Summary

In this paper, work with LSD 25 as an aid to analysis has been described. Of particular interest, has been the *seeming* unpredictability and arbitrariness of experiences elicited by the drug, and an attempt has been made at finding the determining factor in emerging material. This appears to be the "selection" of complementary and compensatory unconscious contents; selected in accordance with Jung's idea of the psyche as a self-regulating system, "striving" toward "wholeness."

Clinical material has been grouped in five categories, in which different aspects of complementation are illustrated. Some questions of transference and resistance in connection with LSD treatment have been discussed; and ideas about typical mechanisms in certain categories of neuroses, as suggested by the patient's response to the drug, have been put forward.

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EDITORIAL COMMENT

SLÁN BEO IS GO nEIRIGH AN BOTHAR LEAT!

Basking in the glow reflected from this Irish salutation to our health, let us consider a few forthright words by that sophisticated and satirical philosopher, Groucho Marx.*

"Despite the fact," says Groucho, "That the drinking of firewater is now legal, America still seems self-conscious about it. . . . In the magazine ads, for example, no one comes right out and says, 'Brother, if you want to get stinking drunk, Old Snake Bite is the booze for you.' No, they warily circle around the truth like a man locked in a small room with a wounded wildcat."

Groucho, without a doubt (he is reliably reported to read while eating, bathing and shaving), has been reading that urbane, witty and generally diverting publication, *The New Yorker*. Any reader can almost get a gentle glow, a mild euphoria, even an approach to *belle indifference*, from merely skimming through the suave and seductive whisky advertisements in this sophisticated journal, but never, no never, would he learn that from whisky one can get drunk, intoxicated, stinko, or, in beatnik terms, stoned, snaky, or hammered out of shape. Take a sample issue! Seven advertisements** of various products of Scotland extoll their wares as "a gentlemanly whisky," one "prized by the world's connoisseurs," the "prince of whiskies," a whisky decorated "for outstanding merit," and so on to more superlatives. The three bourbon advertisements babble of gold medals, of distilleries "hidden away in the hills of Kentucky," and: "That, Colonel, Sir, is indeed Bourbonites' bourbon." (Bourbon is a subject on which Groucho Marx will again be quoted later.) The one rye advertisement notes conservatively that it is "extra quality original pot still whiskey." The Canadian is presented, complete with the scene of a hunt, as "The Canadian's Canadian Whiskey."

But the Irish! Ah, the Irish! Of the two brands advertised individually, one merely proclaims that it is "judged Ireland's best"; the other is "10 years old and gentle as Irish wit." But the full-page advertisement of the association known as "The Whiskey

*Marx, Groucho: Groucho and Me. Bernard Geis and Random House. New York. 1959.

**The New Yorker, September 26, 1959.

Distillers of Ireland" really reaches the heights. As sophisticated, lyrical and New Yorkish as Margaret Fishback's poetry, the script takes one on "An Irish Whiskey Tour of Wall Street." Under the title, "Reflections on the Discouraging State of Lunch-Time Drinking," the distillers pound the drum and blare the trumpets to recruit for the army of "Irish Whiskey Nooners."

"We," say the distillers, "have always found lunch-time drinking a civilized and enriching custom"—which, they add, would be more civilized and enriching if there were more lunch-time drinkers. The Irish whisky nooners, moreover, are an army of the elite —of the successful: "... if only more stockbrokers, vice-presidents, bankers and others who must meet the public would join the ranks of the Irish Whiskey Nooners, how fine! The dear sales curve [a suggestion that the advertisement is not entirely an eleemosynary endeavor] would go into orbit." But the dear sales curve aside, there are fabulous enticements for the Irish whisky nooner. For one thing (and aside from the implication that the way to become a stockbroker, vice-president or banker is to drink Irish whisky at lunch) "the burnished emphatic flavor of Irish Whiskey gives one a lovely breath and one to be proud of."

Ah, that noon-time whisky breath! It is now customary for those who have it to attempt to conceal it, and The Whiskey Distillers of Ireland have a snide remark for drinkers who "possibly—chew Sen-Sen." But the practice is frowned upon in some other than stock-broking, vice-presidential and banking circles. If it were not, there would be cheaper and readier means than Irish whisky to perfume one's respirations; a beer or two, as many an injured innocent can testify, imparts a smell as much like a distillery as like a brewery—and for something like 15 cents instead of maybe a dollar for Irish in (if memory serves) André's, Whyte's, or Fraunces Tavern. And beer-drinking with lunch also can make some claims to being "a civilized and enriching custom" of some antiquity in the American pluto-aristocratic setting. Back in the dark ages of 1904, Lilian Bell wrote a novel around the serene daily life of a moderately high-income family.* The Wall Street (or maybe State Street) hero comes to his suburb, exhausted by a day of furious high-financing. What did the poor tired fellow have for lunch? "A glass of beer and a club sandwich." The pity is supposed to be, not that he was compelled to descend to beer, but that he had

* Bell, Lilian: At Home with the Jardines. L. C. Page Co. Boston. 1904.

time for only one glass of it. The staccato "cluck-clucking" in the background, however, proceeds not only from the outraged WCTU, but also from the grand army of social drinkers, adherents of the *pukka sahib's* rule of never a drink (even of beer) before duty is done. In the club-sandwich income bracket 55 years ago, the rule might be stretched a bit, if not cracked wide open; in the ham-sandwich league, the penalty of economic death (instant discharge) was applied with no compunction. It was a sign of fiscal and social success, attained by the very few, to reach a position where one could knock over afternoon callers with a breath (even a beer breath) and still retain one's job and one's imperturbability.

That was long ago. Precisely what today's "discouraging state of lunch-time drinking" (as the Irish distillers have it) is, would make a fascinating project for scientific research; and some foundation or other ought to consider it. Until such a project is undertaken, however, a guess, based on some acquaintance with *Homo opulens*, may be in order. At such a guess, lunch-time drinking spread from the plutocratic few of the turn of the century to the semi-respectability of a sizable lawbreaking minority in the carefree 1920's. When the big boom blew, it blew many of the carefree spirits (methyl as well as ethyl) out of the financial purlieus with it. One presumes that the low point was reached during the depression, or maybe during World War II; neither era was conducive to the happy-go-lucky display of liquid lunch-time laughter. And there seems to have been no notable revival of noon-time drinking since.

Shrewd operators have always placed something of value on a little alcoholic lubrication (as well as on other forms of lubricity, notably, let us cite, the call girl variety) to promote business dealings. That the dealings promoted are more likely than not to be disadvantageous to the better-lubricated participant, is a matter requiring no demonstration; it is the purpose of the lubrication: "All frens, aren't we? Good ol' Charlie wouldn't cheat anybody anyhow." But the psychiatrist can supply chapter and verse to show defects in judgment, discrimination and general intellectual functioning after alcoholic ingestion of only fractional dosage. One should wonder how much of the incurable optimism of many of the suckers for the ever-rising market of the 1920's was distortion of judgment by the golden haze of business-hour drinking of bootleg alcohol.

This journal is not entering a protest against people selling their product, or against clever advertising of a product—which is often the cleverest writing in any given issue of any given publication—anybody should get a kick out of it. Neither is this an attempt to reform the Irish, which would have to start with the disagreeable job of reforming one's self—one's self in this instance being the fairly numerous members of this QUARTERLY's editorial board who derive from Ireland. Rather, this should be taken as appreciation of numerous good things Irish, from shamrocks to wit, and including "the burnished and emphatic flavor" (smoky or otherwise) of Irish whisky and the burnished and emphatic flavor of Irish whisky advertising, a bit of which even psychiatric editors can approve and enjoy. Without commerce, including the liquid, the world could not prosper. And without the clever advertising of commercial products, we could not have such amenities as *The New Yorker*. But, as Andrew Lang's Prince Prigio discovered, one can be too clever.

It is submitted here that the advocacy of noon-time drinking (however well concocted) is being far too clever. There is such a thing as the rule of ascending dosage, whereby thousands of moderate to heavy drinkers move over every year to the army of compulsive drinkers. How many these last number is possibly as debatable as to how many actually do what about sex, if one's estimates are based on the Kinsey statistics. In the alcoholism field, it can be argued that there are no figures even as reliable as the Kinsey statistics. (If one assumes the much less than moderate figure of 100,000 compulsive drinkers, each spending on the mean, at a conservative estimate, two dollars a day, there is, besides morbidity and mortality, an annual bill of $73,000,000 for their compulsions; and many persons familiar with the problem would multiply these figures five to 20 times.) But whatever the figures are, it is no service to society to add to them—America's huge liquor bill, in money, health and life was one of the powerful arguments for the disastrous experiment with prohibition.

There have been from time to time a number of quaint rules designed to limit alcoholic consumption—and so limit the number of habitual drinkers who become addicts. The officer who drank before tiffin was scorned in Anglo-Indian military society. In naval circles, "neither captain tight nor midshipmite" drank until the sun was over the yardarm. The enlisted rating's quaffing was

even more strictly limited, not only by drinking hours, but since the time of Admiral Edward ("Old Grog") Vernon (1684-1757), by putting water in his strictly-rationed rum. It is true that Anglo-Indian "tiffin" is lunch, named, says Webster, for "tiff," a "now rare" word of Old Norse derivation for "a small draft of liquor" or "a small beer"—the operative word is "small." It is also true that the sun rose over the yardarm of a ship of the line sometime between 7 and 8 bells, or as near noon as makes no difference.

The point to these fond reminiscences is that both tiffin and the glass in the captain's cabin followed work well done, work completed. Tiffin came after a morning of paper work, inspections, parades and drills, and preceded the customary rest period of a tropic afternoon; when the sun was over the yardarm, the holystoning, the repairing, the cleaning up, the spitting and polishing, all the ship's heavy chores, were done. The rule was, duty first, then a small glass afterward.

But our "stockbrokers, vice-presidents, bankers and others" among the Wall Street habitués who are exhorted by the Irish distillers to undertake noon-day imbibing are not done with drills, parades and office work by tiffin; New York does not retire for afternoon rest from the heat of a tropic sun; lunch-time finds the working day (from 9 to 5) less than half gone. And neither are our Wall Streeters divided into watches, one of which goes off duty at 8 bells; noontime over, Wall Streeters still face an afternoon watch, during which they are supposed neither to slumber nor to sleep. The modern equivalent of the sun over the yardarm is the drink before dinner; or, on occasion, a somewhat earlier cocktail hour. It would be well to keep the limit there. Not every fellow who has a shot of Irish, or a dry sherry, or even a martini for lunch is on his way to what Groucho Marx refers to as getting "stinking drunk"; but some of them are; and snob appeal advertising of a "lovely" whisky breath is the way to get more of them there. This journal does not think youngsters should be told that lunch-time drinking is smart.

Consider Groucho on the matter of advertising, a business at which he is no slouch himself.* He is discussing the way in which the advertiser delicately skirts around even a hint at the consequences of one slug too many. Instead:

*Marx, Groucho: Op. cit.

"If they're selling bourbon, the ad will show an old colonel sitting on a tree stump outside a small distillery. He is faultlessly attired and topped off with a cream-colored Stetson. In his right hand he is holding a glass of ten-year-old redeye and exhorting you in pure, homestead Kentuckian, in the following fashion, 'Lissen, friend, we're jes a li'l ol' distillery. We don't make much likker. But, by Jiminy, what we do distill spends seven years coursin' through charcoal casks! You see, friend, we're jes a li'l ol' distillery.'

"Sometimes the ad will consist of three men sitting on a white horse, gaily lapping up vodka martinis. Personally, I have trouble enough remaining on a horse without the additional responsibility of dangling a vodka martini in mid-air. Besides, it seems to me that the top of a horse isn't the most comfortable place to get drunk. Why don't those three barflies go to a saloon if they want to tie one on? It certainly would be less conspicuous.

"I hate to admit it, but few of us can resist the power and pressure of modern, high-tension advertising. This particular ad has softened me up to such a degree that I now find myself unwilling to drink a vodka martini unless I'm sitting with two other men on top of a white horse."

Softening up is what the ads are for. The Whiskey Distillers of Ireland crown their softening-up process by offering "Pride Badges" to attest to the genuineness (no brewery substitutes accepted) of one's "lovely" Irish breath. Something better than a breakfast-cereal prize, however, might be a better softener. There are, for instance, whisky dispensers. A pair of these beauties, model of 1870 (one unfortunately labelled "Rum," the other, proudly, "Irish Whisky"), were on display at a recent New York antiques show. As illustrated in the newspapers, they are enormous jars, huge Jeroboams, each holding a couple of gallons at least, neatly fitted with covers and with spigots just above their graceful stems.* These might be prize badges worth having. A couple on the desk of a stockbroker, vice-president, banker or "other" would send "the dear sales curve" into regions untouchable by mere trinkets to wear on one's coat.

This might give inspiration for still more conquests—the Irish distillers have not yet taken up the breakfast problem. This is an area with plenty of room for expansion, though it is not a virgin

*New York Daily News, October 21, 1959.

field; the Kentucky breakfast is regional but traditional. Huck Finn describes breakfast at the Grangerfords'. (The custom had already crossed state lines into Tennessee.) The older Grangerford boys lined up before their parents. Each young man raised his glass of "bitters" in a toast, "To you, sir," and "To you, madam." Then a spoonful of water was poured on the sugar in the bottom of two glasses so that young Buck and young Huck could join the ceremony too. "Bitters," of course, was bourbon and bitters, or a distillation equivalent thereto. A modern bartender describes a Kentucky breakfast something like this: "It's an oldfashioned, with bitters, without any fruit. You can have it hot instead of cold if you want." He adds thoughtfully, "You can leave out the bitters, too."

If Irish before lunch, why not Irish before breakfast, too! One could leave out the bitters, and the sugar. What a lift an Irish breakfast would give! If it is good advertising to tell young people that more whisky—in the form of whisky at lunch—is a smart thing, why would it not be even better advertising to tell them that whisky at breakfast is an even smarter thing! If it is good to recruit openly for the army of ailing, alcoholic addicts, why limit the recruiting hours? If a whisky breath on a banker is good during afternoon business hours, why not whisky breaths for all, during all hours—with not only tipsy bankers, but tipsy chauffeurs, tipsy policemen, tipsy butchers, bakers and candlestick makers, tipsy surgeons and psychotherapists, and, to crown it all, a tipsy government! A tipsy colleague at work is a good thing? If this is fantastic, it might be noted that an advertising effort like the one here discussed is brainwashing for the sale of a tissue poison; alcohol is officially so classified.

There would at least be grim honesty in advertising—as Groucho might approve—that rare Old Gristmill can grind one into stinking drunkenness. But the endeavor to promote the same end, oh, so indirectly and so elegantly, is a start on a road which once led to a noble experiment. As an endeavor, it is no favor to those who appreciate the right and privilege of enjoying the exports of Ireland in appropriate amounts at appropriate times.

"*Slán Beo is go nEirigh an Bothar Leat.*" ("Good health, and may the road rise with you.") But not at lunch time.

LETTER TO THE EDITOR

DIAGNOSIS EX MACHINA

To the Editor of THE PSYCHIATRIC QUARTERLY:

Sir:

The July 1959 issue of THE QUARTERLY has arrived with a challenging editorial, "*Amentia ex Machina*." Having just read it, I think that perhaps another editorial is in order entitled, "You Cannot Make a Silk Purse Out of a Sow's Ear." The trouble with the study which initiated the editorial is that the only test which was used in the digital computer was a questionnaire, the Cornell Medical Index Health Questionnaire.* Questionnaires are notoriously inadequate as diagnostic aids. The success which the machine had in diagnosing somatic cases with the aid of the C.M.I. was probably due to the fact that patients admitted somatic complaints much more readily than mental symptoms. In general, patients feel that somatic symptoms reflect on them much less than mental symptoms.

The role of the digital computer is well described in the editorial with the possible exception of one point, namely that the work performed by the digital computer should be in the middle of a human being's chain of reasoning. The human being starts the chain of thinking, say about a diagnostic problem, then uses the digital computer as an aid to obtain some information, and finally reaches the conclusion, utilizing the digital computer results but being free to qualify, change or complement them.

The great advantage of the computers lies in two areas as far as I can see. One is reliability. The digital computer does not think for itself and is exceedingly consistent and thorough. Consequently, it thinks through all the problems put into it with equal degrees of thoroughness and consistency, assuring perfect reliability. As long as reliability is imperfect, the problem of validation is very difficult. Thus, perfect reliability is an important step forward toward solving problems of validating psychological tests. For example, once the interpretation of the Rorschach records with the aid of digital computers is solved, the validation of this test will be rendered much more simple and easy. Each statement made about every

*EDITOR'S NOTE—In reference to Dr. Piotrowski's comment that "the only test which was used in the digital computer was a questionnaire," it should be observed that the only test used by the human diagnosticians (one for somatic and one for psychiatric disorders) who competed with the machine was that same questionnaire. This QUARTERLY looks forward with considerable interest to the possibility of the contest for which Dr. Piotrowski sees some hope—that between "'a machine with "postgraduate" psychiatric training and a psychiatrist with similar training.'"

individual can then be submitted to a check as to its truth value. As you know, attempts at validating the Rorschach are now inconsistent, confused, and largely unsatisfactory.

The second improvement of digital computer programming is that it forces people to think precisely, consistently, and simply. The digital computer must receive very specific instructions to function.

The editorial stresses the role of intuition in diagnosis (and in personality analysis). It seems to me that people who have good intuitions—for you probably agree that most intuitions are not very helpful, being in the nature of nonspecific clichés—are also good thinkers and that in most cases it would take only some additional effort to express the way by which they reach their good intuitive insights in terms which can be consciously identified, codified, and put in a digital computer.

I have a reason to react this way to your editorial because I have been engaged in programming the interpretation of the Rorschach for digital computers. The rules of interpretation which are in my *Perceptanalysis* (Macmillan, 1957) are being specified and formalized so that digital computers may be able to do blind analysis. The program committee of the American Psychiatric Association has accepted my paper on this subject for the May annual meeting.

When this programming of the Rorschach is completed (I hope by May), we shall be ready for "a contest between a machine with 'postgraduate' psychiatric training and a psychiatrist with similar training." (Your editorial, p. 574.)

In conclusion, if you put data obtained with the right test into the machine, you will get the right answers, but if the test is inadequate, even a digital computer cannot produce truth out of thin air.

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BOOK REVIEWS

Electronic Instrumentation for the Behavioral Sciences. By CLINTON C. BROWN and RAYFORD T. SAUCER. 160 pages. Cloth. Thomas. Springfield, Ill. 1958. Price $5.50.

One of the most pressing needs for the behavioral scientist, especially for the worker in the field of operant conditioning (where the demands on switching circuitry are becoming increasingly complex), or for the sensory psychologist (whose concern is, perhaps, more with the practical application of the vacuum tube), is a thorough yet reasonably simplified treatment of modern electrical and electronic instrumentation. Unfortunately, *Electronic Instrumentation for the Behavioral Sciences* is little more than a brief survey of this very important area.

On many points, this is a good book; its sins of omission are many, its sins of commission are very few. With respect to the choice of topics, everything of possible relevance to the behavioral scientist is there; but the lack of depth and detail is regrettable not only in the chapters themselves, but in the bibliography and in the list of commercial sources of instruments.

The book is very well organized. There is an orderly procession, from the introductory chapters on basic theory and an elementary introduction to the various types of tubes, to an up-to-date presentation of transistors and their uses. The final chapter on the function of the workshop is a valuable asset. Also the authors have presented a very practical type of appendix which, in addition to the usual references, includes relevant periodicals, a list of commercial concerns which supply various instruments and components, and a brief section on the tube types which the authors have found by empirical test to be the most reliable.

The Cultured Man. By ASHLEY MONTAGU. 308 pages. Paper. Permabooks. New York. 1959. Price 35 cents.

Discussion by competent authority of what constitutes a cultured man is something which ought to be welcomed by all educators, particularly professional-school educators. Ashley Montagu's essay should therefore be of use in high schools, schools of nursing, colleges and graduate schools, including schools of medicine. So much is not to be said for Montagu's accompanying attempt (which makes up most of his volume) to establish individual "culture quotients" by the questionnaire method. Whatever measurements can be made of an individual's culture, it certainly cannot be gauged by his proficiency in answering $64,000 questions. With all the disclaimers and reservations with which Montagu surrounds his questionnaires, they are still quiz-show stuff. Regrettably, therefore, his book can be recommended only with considerable qualification.

The Measurement of Meaning. By CHARLES E. OSGOOD, GEORGE J. SUCI and PERCY H. TANNENBAUM. 342 pages. Cloth. University of Illinois Press. Urbana, Ill. 1957. Price $7.50.

The problem of meaning has been a traditional one for both philosophy and psychology, but one which has been extraordinarily resistant to solution. Recent developments, however, of new methods of quantification and measurement, as well as new theoretical concepts, promise to put the whole problem of meaning in a new perspective. An important methodological development is described and illustrated in detail by its innovators in the present work. This is the "semantic differential." The essential procedure consists in having subjects rate words along a bipolar, evaluative scale. For example, the bipolar opposites of a given scale may be "happy-sad" or "hard-soft." The subject is required to rate a stimulus word such as "mother," "love," or "friend" along the scales, assigning ratings from one to seven. Then the resulting scale values for each stimulus word are subjected to a factor analysis. The goal of the methodology is to determine the minimum number of independent scales that most completely describe the "meaning" of the stimulus word. In brief it represents a fusion of controlled association and scaling techniques. As yet it is too early to assess the value of the method; but its diagnostic use may be of some interest to clinicians. This is most persuasively illustrated by the authors in the "blind" evaluation of a recent and famous case of multiple personality.

Myokinetic Psychodiagnosis. By EMILIO MIRA LOPEZ, LEOPOLD BELLAK, M.D., MICHAEL H. P. FINN, Ph.D., LEONARD SMALL, Ph.D., and FRANCES BISHOP, B.A., editors. 186 and xx pages, with bibliography. Cloth. Logos. New York. 1958. Price $6.75.

Professor Mira and his associates have already devoted two decades of work to the development of myokinetic psychodiagnosis, but, as the editors clearly state in their preface to this work, much remains to be done, since the standardization of the test and its validation are far from complete. The test, however, is a diagnostic method of large promise, thus enriching the store of techniques for analyzing personality; and it fixes attention on the most neglected area, which is the field of underlying dispositions of temperament as these are manifested in expressive movement. This first accessible report of the method in the English language opens up a wide horizon.

Schizophrenia. By MANFRED SAKEL. 334 pages. Cloth. Philosophical Library. New York. 1958. Price $5.00.

In view of the recent advances in the use of drugs in the treatment of schizophrenia, this volume is primarily of interest for its historical value.

Sex in Psycho-Analysis. By SANDOR FERENCZI. 288 pages including index.

The Development of Psycho-Analysis. By SANDOR FERENCZI and OTTO RANK. 68 pages. Both books in single paper cover. Dover. New York. 1959. Price $1.85.

This paperbound volume is a reprint of a small book by Ferenczi and an even smaller one in which he collaborated with Rank in the days when they were still orthodox psychoanalysts. Both contributions are of considerable historic interest, and the reprint price is adapted to the student's pocketbook.

On A Balcony. By DAVID STACTON. 255 pages. Cloth. London House & Maxwell. New York. 1959. Price $3.50.

The percentage of great success in the writing of historical novels is very small. The reviewer thinks that this one does not make that select category, that it fails to give enough psychological material to its characters to create the illusion of substance. He also thinks the motivation—fear of the dark—leading to Akhnaten's monotheism is exceedingly thin. He owns, however, to a massive prejudice against a book which has as an opening sentence: "Thirteen eighty-six B.C." After this astounding opening infelicity, it is difficult to assume a reasonably objective attitude.

History of Eastern Medicine. Special number of *Hamdard Medical Digest*. HAKIM MOHAMMED SAID, editor. 200 pages. Paper. Karachi, India. 1959. Price $1.50.

This book is a review by accepted authorities of the development of medicine in the East from Imhotep to medieval and early modern Turkey, India, Pakistan, China and Japan. The theories and the events of medical history in the East are not well covered in general historic account. This volume could well find a place, therefore, in any medical library. The book is appropriately illustrated, with some beautiful plates in color.

Anatomy and Physiology. Volume 2. By EDWIN B. STEEN and ASHLEY MONTAGU. 314 pages including index. Paper. Barnes & Noble. New York. 1959. Price $2.50.

This is the second volume of an excellent college outline which is keyed to nine standard textbooks on the subject. Volume 2 covers urinary, respiratory and nervous systems, sensations and sense organs, and the endocrine and reproductive systems. This book should be useful for teaching and reference in any school of nursing library and should be of use for quick reference in any other medical library.

The Changing American Parent. By DANIEL R. MILLER and GUY E. SWANSON. 302 pages. Cloth. Wiley. New York. 1958. Price $6.50.

Changing American society, accompanied presumably by a changing American character, has been the subject of attention by a number of social observers, of whom David Riesman and William Whyte are probably the best known. The last 15 years or so have also seen marked changes taking place in child-rearing practices in America. It is the contention of Miller and Swanson that these two phenomena are not independent, but rather that the second follows directly from the first. The reason, essentially, is that in a changing society, new values are learned; and parents, attempting to teach these new values to their children, will adopt, not necessarily consciously, new methods of child training consistent with their beliefs.

To test their hypothesis, the authors have divided their sample of 582 families, randomly drawn from the Detroit area, into two broad groups —the "entrepreneurial" and the "bureaucratic" and examined their respective child-rearing practices. The "entrepreneurial" group is representative of the old middle class, now on the wane, and the "bureaucratic" group is composed of members of the newer middle class—made up of the "organization man." Some differences are, indeed, found between the two groups and while they tend to be relatively small, they are in line with predictions made by the authors.

The book is excellent; it is not only clearly written, but the empirical findings are well integrated with theory. An additional feature that should recommend it to psychiatrists and psychologists is a review of child-rearing practices in America over the past 150 years.

More In Anger. By MARYA MANNES. 189 pages. Cloth. Lippincott. Philadelphia. 1958. Price $3.50.

The author, a journalist, has this to say: "Why did I write this book? Because I am angry for a long time. With what? With the progressive blurring of American values, the sapping of American strength, the withering of American courage. I think we have been suffering for some time from a sort of spiritual leukemia: an invasion by the white cells of complacency and accommodation."

As usual with angry people, the author seems conscious of antagonizing friend and foe, and says so. Her subjective criticism of many aspects of the America of the fifties frequently seems exaggerated, but is witty. She comes up with this bit (while discussing the new taboos of what is untouchable in television humor): "The best cowboy in the world can't ride herd on the sacred cows. There are just too damn many of them."

Every Other Bed. By MIKE GORMAN. 309 pages. Cloth. World. New York. 1956. Price $4.00.

The facts relative to the care of the mentally ill need to be presented over and over again to the public. Many psychiatrists are not able to present the facts so that the layman will understand; and it is good fortune that a newspaper man like Mike Gorman has devoted himself to presenting them. Since 1945 Mr. Gorman has written many articles on mental health objectives, and at present he is executive director, National Committee for Mental Health.

In his introductory chapter, the author states "This book has been written for the express purpose of bringing to the American people the facts about the parlous state of psychiatric research and training in a country fat with prosperity, two-toned automobiles, and refrigerators which open from either side"—and, one might say a country which, while feeding and worrying about the other peoples of the world, forgets about the ills of the human mind among our own people. More of our investments should be made in our own mentally ill.

Mr. Gorman gives many enlightening facts about the use of drugs; the personnel shortages of mental hospitals due to legislative indifference; the needs and objectives of research; and, finally, of hopes for the future.

This book should be in every library, and should be supported widely by the profession—as a call to the citizens of our country for action.

The Caretakers. By DARIEL TELFER. 404 pages. Cloth. Simon and Schuster. New York. 1959. Price $4.50.

Oozing with sentimentality and soap opera dialogue, this novel traces the experiences of two student nurses affiliating for psychiatric training at a state mental hospital. The experiences, however, have mostly to do with sex and murder, and the training apparently is the clarification and taming of their confused emotions.

The author is at her best when she gives a glimpse of the sort of treatment patients receive in a state institution. She fares less well in her story line and in the superficial analysis of her characters.

The layman will probably find himself absorbed, shocked and aroused by sympathy; there will be very little real understanding, however, of present conditions in a state hospital or of the motivations of the people who work in such an institution. The professional person will find the book reveals nothing that he does not already know; and for him the novel will remain a naïve, although sincere attempt at presenting to the general public a revealing picture of those who care for our mentally ill.

The Cerebral-Palsied Child. A Guide for Parents. By WINTHROP M. PHELPS, M.D., THOMAS W. HOPKINS, Ph.D., and ROBERT COUSINS. 237 pages. Cloth. Simon and Schuster. New York. 1958. Price $3.95.

The reviewer believes that this is the first really complete guide for parents who have children suffering from cerebral palsy. Surely, no three persons are better qualified than the co-authors to write such a book.

First, the "guide" describes cerebral palsy, its cause, its symptoms, various types of the conditions, the physical defects associated with it, and the numerous methods which are used in treatment of the pathological condition.

Because parents will want to gauge the child's achievement ability different tests are described.

The book then advises parents on desirable attitudes and on the adjustments which they should make; tells how to care for the child at home; lists the emotional and personality problems to expect; and notes how the child may behave toward others at play or in school.

Finally, information is given as to what educational programs can be organized in schools and as to the probable outcome for the individual, as he develops.

The book has two appendices. One is a listing of the United Cerebral Palsy Association affiliates. The other is a regional directory of day schools and boarding facilities.

Clinical Psychology of Exceptional Children. By C. M. LOUTTIT, et al. 573 pages. Cloth. Harper. New York. 1957. Price $6.00.

This is the third edition of a standard text on deviant behavior in childhood. However, there has been a commendable revision, and an interesting change in title. To consider the latter point first, it may be noted that while, in general use, the term "exceptional" has connoted the "gifted" child, and in the psychiatric field, the mentally retarded; in the present work, it refers to the child who deviates from the average, whether in terms of superior or inferior development. However, the bulk of the text is concerned with undesirable deviations—in particular, juvenile delinquency, disabilities, speech and sensory defects, and emotional disturbance. Among the revisions, a major change is the attempt to integrate behavior disorders and emotional disturbances about the modal concept of anxiety. The development of the normal child is outlined and summarized as a point of departure for the consideration of deviant development.

The coverage of important problems is broad and representative of present-day work; and the text should prove of continued value for undergraduate courses in psychology and education. The one major defect, in the reviewer's opinion, is the brevity with which so many interesting, as well as crucial, topics and problems are treated.

Eugene O'Neill and the Tragic Tension. By DORIS V. FALK. 211 pages. Cloth. Rutgers University Press. New Brunswick, N. J. 1958. Price $4.50.

Eugene O'Neill and his work are certain to be popular subjects for the critic who would bring psychoanalytic insights to bear upon literature. O'Neill himself made use of psychoanalytic theory in his plays, and his tortured life cries out for analytic interpretation.

Doris Falk has given an excellent initial study of some of the underlying themes in O'Neill's work: his self-hatred, his search for a satisfactory self-image; and his attempts at reconciling the tragic tension of the opposite demands of submission and arrogance. The views of Jung, Fromm and Horney are used to help understanding of the man and his work; and, indeed, O'Neill is seen as foreshadowing neo-Freudian developments. This is a useful book for those interested in literature and psychology.

Master Your Tensions and Enjoy Living Again. By G. S. STEVENSON and H. MILT. 237 pages. Cloth. Prentice-Hall. Englewood Cliffs, N. J. 1959. Price $4.95.

The consultant and public relations director of the National Association for Mental Health collaborated on this volume, producing a popular-simplifying book on tensions. It is regrettable that too many compromises with the publisher's wishes for simplicity have been made. Such entries as "neurosis," "unconscious," and "Freud" do not even appear in the index. As to practical conclusions, eight "tension breaking methods" are advocated. They are all on a conscious level.

Lincoln's Emotional Life. By MILTON H. SHUTES. 216 pages. Cloth. Dorrance & Company. Philadelphia. 1957. Price $3.00.

A retired physician in California collected available data on Lincoln's emotional life to come up with the diagnosis: "a depressive type of psychoneurotic within the bounds of so-called normalcy." Although the author's psychoanalytic instrumentarium may be incomplete, his gathering of data is complete, thus making the book highly interesting.

The Story of Peptic Ulcer. By R. D. TONKIN. 68 pages. Hard paper cover. Saunders. Philadelphia. 1957. Price $2.25.

This is a popular description of ulcers, intermingled with amusing caricatures. Among remedies, psychotherapy is not mentioned by the British author.

The Child Within The Group. An Experiment in Self-Government. By MARION E. TURNER. viii and 93 pages. Cloth. Stanford University Press. Stanford, Calif. 1957. Price $3.00.

A unique experiment in which children learn to manage and be managed by group standards growing out of their own and each other's behavior is reported on rather succinctly in *The Child Within The Group.* The study is scientific, and deals specifically with the development of behavior. In every group, as children become acquainted, there are inevitably conflicts of wills, injustices, teasing, some deceitfulness, and tattling. In the experiment reported in this book, when the children learned to talk things out, they came to arrive at an effective means of solving their problems. (How like adult-living are the techniques of child development and functioning!) This book as a record is valuable to psychologists and others interested in a demonstration of self-government in children at a much earlier age than had been considered possible.

The Concept of Development. An Issue in the Study of Human Behavior. DALE B. HARRIS, editor. x and 287 pages. Cloth. University of Minnesota Press. Minneapolis. 1957. Price $4.75.

The Concept of Development is made up of 17 papers by as many contributors from the fields of psychology, the natural sciences, philosophy, medical science, and the humanities. The volume is based on the proceedings of a conference held at the University of Minnesota to mark the first 30 years of productive work at the university's institute of child welfare. The views of the authors are broad and varied, and represent the efforts of scientists and scholars working in a pluralistic system, and hoping ultimately for a unified system. The work as a whole contributes essentially to sound thinking in areas of learning, growth, and maturation—psychological, medical, physiological, and educational.

The Almost Chosen People. By WILLIAM J. WOLF. 215 pages including index. Cloth. Doubleday. New York. 1959. Price $3.95.

"The almost chosen people" is a phrase taken from a speech by Lincoln, dedicating himself to preservation of the Union, the Constitution and the liberties of the people. He said: "I shall be most happy indeed if I shall be a humble instrument in the hands of the Almighty and of this, his almost chosen people, by perpetuating the object of that great struggle." This study is by a clergyman and a scholar and is primarily a discussion of the religious feelings of a man who seems to have been a profound believer but who was never a church member. The text should be of interest to any student of Lincoln's personality.

A Therapy for Anxiety Tension Reactions. By GERHARD B. HAUGEN, M.D., HENRY H. DIXON, M.D., and HERMAN A. DICKEL, M.D. 110 pages. Cloth. Macmillan. New York. 1958. Price $3.50.

This book describes a method of treating emotionally ill persons, particularly those with anxiety reactions.

The authors are apparently "disciples" of Dr. Edmund Jacobson of Chicago who has experimented with what he calls "progressive relaxation." The reviewer thinks that Dr. Jacobson's two previous books, *Progressive Relaxation* and *You Must Relax* have many good ideas and that any doctor or psychologist would profit by reading them. The main idea is to teach the patient how to relax his whole body.

The authors of the present book make the statement that psychiatrists will not read the book unless they have to review it and then will refuse to believe it. This is only partly true in the present reviewer's case. The reviewer has practised and taught relaxation and believes that it is mainly an adjunct to therapy, that there are some mild cases which will respond to relaxation alone, but that, in most cases, real psychotherapy has to be used also. If the psychological problems which originally caused tenseness and anxiety are not straightened out, relaxation is no more than a temporary solution. The reviewer would suggest that *You Must Relax* be read before this book, so that the reader will understand what method the authors are describing.

The American Funeral. By LEROY BOWMAN. 181 pages including index. Cloth. Public Affairs Press. Washington, D.C. 1959. Price $4.50.

The American Funeral is a sociological and economic study of this country's most pronounced example of guilt and masochism. The author covers group behavior at funeral gatherings, family attitudes, the bargaining situation between undertaker and family, and community ambivalence toward the undertaker. The general conclusion is: "It is time for fundamental changes in the conduct of funerals in the United States. The evils connected with them have continued not only for decades but for generations. Thousands of families have suffered deprivation because of the unnecessary, unproductive and unwise expenditures they have made in a pitiful effort to gain an illusory status for their dead and themselves. In varying degrees they have also suffered deprivation of the satisfying social and ethical consolation and inspiration that might have come from modernly conceived aid in time of grief and mental distress."

This is a well-written and generally useful discussion. The reviewer wishes it had been amplified by thorough study of the depth psychology involved.

Psychology of Communications. Paul H. Hoch, M.D. and Joseph Zubin, Ph.D., editors. XII and 305 pages, with 35 tables, and seven figures. Grune & Stratton. New York. 1958. Price $6.75.

This highly significant volume consists of the proceedings of the forty-sixth annual meeting of the American Psychopathological Association, held in New York City in June 1956. It includes the Samuel W. Hamilton lecture by Sandor Rado. There are twenty-six contributors. The subject matter revolves about the various facets of normal and pathological communication. Psychologists, psychiatrists, and psychoanalysts bring their views regarding factors as adaptive or defensive mechanisms, blindness, electric shock, auditory feedback, developmental alexia, language structure and social structure. Methods of observing ultraconceptual (hidden) communication—tangential responses, and autistic or other verbal personality patterns, shown during standard interviews, or revealed by waiting room techniques—are reported. One chapter is on the effect of drugs (pentothal and/or desoxyn) in psychotherapy. Another chapter is on the problems of communication between physicians and schizophrenics.

The first series of chapters is discussed by Zubin and S. Sutton; the second, by Hoch. The third and last series is discussed by J. D. Frank and Sandor Rado. The discussions and papers point the way to further observation, experimentation, interpretation and understanding of the verbal part of behavior.

Preceding the text is a foreword by the editors and a three-page biography and photo of Sandor Rado. In the appendix one finds a list of official members of the American Psychopathological Association with past and present officers. There is a five-page index. This book is highly recommended.

The Limit of Love. By James L. Summers. 189 pages. Cloth. Westminster Press. Philadelphia. 1959. Price $2.95.

A novel investigates the problem of whether teen-agers should have intercourse with their sweethearts. The book does not come up with an answer, but does describe the thoughts of one specific "couple." The presentation is contradictory, sometimes serious, sometimes with an eye on the potential young reader. The book contains little to recommend it.

The Flame Trees of Thika. By Elspeth Huxley. 288 pages. Cloth. Morrow. New York. 1959. Price $4.00.

Memories of an African childhood are written by an English woman who went to Kenya in 1913. The description is interesting; psychological matters appear foreign to the author.

Rumor, Fear and the Madness of Crowds. By J. P. Chaplin. 191 pages. Paper. Ballantine Books. New York. 1959. Price 35 cents.

This is a popular book, excellently presented by a professor of psychology. It covers 10 "case histories" of American instances of pathological fear and crowd violence, from the burning of a Boston convent by an anti-Catholic mob in 1834 through some of the uglier manifestations of McCarthyism. Other topics include the Millerite hysteria over the "end of the world" in 1843 and 1844, the "great airship" sightings of 1897 and the flying saucer sightings of the 1950's, the rioting at the funeral of Rudolph Valentino, Orson Welles' invasion-from-Mars scare, and various irrationalities inspired by Bridey Murphy. The discussion is as sound and illuminating as could be expected from an approach which is principally sociological and only incidently touches on depth psychology. It is an excellent introduction to its subject and can be highly recommended.

Hawaii. By James Michener. 937 pages, and genealogical charts. Cloth. Random House. New York. 1959. Price $6.95.

Those who have read other James Michener books will welcome *Hawaii*. This prodigious volume of over 900 pages covers, in fictional form, the story of the Hawaiian Islands from the time they were formed out of volcanic rock, to 1954. The tale is told of the dangerous journey made to Hawaii by the Polynesians more than a thousand years ago. The story unfolds, as the Occidentals, Chinese, Japanese and Filipinos are added to their numbers. Each is anxious to retain individuality. How this is made possible, and also how the inevitable assimilation is accomplished make this a fine novel. There is good mental hygiene in the study of race relations here.

Anthropologists and social scientists in general should find this book particularly fascinating. It will also be of interest to anyone interested in learning the background of our fiftieth state. It will be long remembered, and probably re-read many times, by "Mainlanders" who have been fortunate enough to visit Hawaii. (The reviewer presumes these Mainlanders are included in the dedication of the book which reads, "To all the peoples who came to Hawaii.)

Men Die. By H. L. Humes. 184 pages. Cloth. Random House. New York. 1959. Price $3.50.

This short, somewhat allegorical, novel at first focuses its attention on a young lieutenant and his six Negro prisoners who are the sole survivors of an explosion on a Caribbean island. By means of a complex and skillful unfolding of his story, the author probes into the past as well as the future of the lives of the lieutenant, his commanding officer and his officer's widow. The novel is masterfully written and is heartily recommended.

Psychiatric Education and Progress. By JOHN C. WHITEHORN, M.D. 49 pages. Leatherette. Thomas. Springfield, Ill. 1957. Price $1.75.

An eminent educator of psychiatrists outlines very briefly the aims, ideals and practical means that he teaches. He stresses what he calls "the task-force conception of a specialty group. This conception emphasizes the responsibility for pulling things together, for formulating and communicating to a broader group some of the communicable productions of the specialty group experience. From the viewpoint of this responsibility, the mingling of scientific and artistic components in psychiatric performance presents a rather baffling challenge but also a very rewarding mode of advancement."

This small book should be of considerable value to all concerned with the education of the psychiatrist from medical school through psychiatric residency.

Facts About Nursing. American Nurses' Association. 243 pages including index. Paper. American Nurses' Association. New York. 1959. Price $2.00.

This annual publication presents the essential data concerning the practice and practitioners of nursing. It covers classifications, numbers, and distribution of nurses throughout the United States. It covers economic, educational and other factors in the life of the nurse. Its statistics include such things as median salaries in schools of nursing, insurance and retirement plans, employment conditions and statistics on vacancies. There is a section on allied nursing personnel and on related health information. The principal nurses' organizations are listed and described in the final chapter.

This book should be most valuable to the medical administrator and nurse administrator as well as to the individual nurse.

Psychotherapy and Society. By W. G. ELIASBERG. 217 pages with appendices, illustrations, bibliography and index. Cloth. Philosophical Library. New York. 1959. Price $6.00.

In his preface, the author notes that many pages of this book deal with those bases of the esoteric techniques of psychotherapy, which lie outside the pale, in life, literature, the arts, philosophy, religion, propaganda, history, economics, and population theory.

Eliasberg's 217-page book—with six chapters, nearly 100 headings for important subjects, 13 illustrations and 35 case histories—displays the productive energy, impatience and excitement of brilliant thinking and its overt verbal expression.

1000 Homosexuals. By EDMUND BERGLER, M.D. 249 pages. Cloth. Pageant. New York. 1959. Price $4.95.

It is probably fair to represent *1000 Homosexuals* as the start of a one-man mental hygiene campaign in the specific area of homosexuality. Dr. Bergler has not been notably optimistic over the amount of improvement in general mental health that can be brought about by conscious educational efforts. In this specific area, however, he appears to believe that something of considerable value can be accomplished. This book is designed to demonstrate to the public and to the professions that homosexuality is a disease and is curable. If it is recognized as a curable disease, something can be done, both in the way of prophylaxis and in the way of cure.

The author notes than when he wrote *Homosexuality, Disease or Way of Life?*, published in 1956, he had treated 100 homosexuals successfully in a period of around 30 years. Following its publication, he reports 12 successful treatments of his own in two years, and 50 successful treatments by eight colleagues during the same period.

Bergler wants homosexuality "deglamorized" by educational and therapeutic measures. He wants 1) public discussion; 2) a publicity campaign to the effect that homosexuality is a painful, unpleasant and disabling illness; and 3) the establishment of out-patient departments in large hospitals, to treat homosexuals psychiatrically. As one evidence of the urgency of the problem, Bergler cites the spreading of venereal disease through homosexual relations, quoting Herman Goodman, M.D., to the effect that there is more danger of venereal disease in a homosexual than in a heterosexual contact.

Dear Dead Days. By CHARLES ADDAMS. 126 pages. Cloth. Putnam's. New York. 1959. Price $3.95.

This is a collection by Charles Addams of a few of his characteristic cartoons and more than a hundred exhibits of what the dust jacket calls his sources of inspiration. These include: drawings and photographs of numerous monsters and other birth anomalies; illustrations of the last three-quarters of a century of disasters, murders, rat hunts, implements for killing or suicide, microscopic inhabitants of the lungs of drowned persons, alleged surgical instruments, advertisements of patent medicines, supplies for undertakers (including one by the Razorless Post-Mortem Shave Co.) and various human and animal circus freaks. There is an illustrated "poem" entitled "The Story of Little Suck-A-Thumb." The great, long-red-legged scissor man came when "Conrad" failed to heed the warning not to suck his thumb. "Snip! Snap! Snip! They go so fast; That both his thumbs are off at last."

The psychiatrist will have his opinion of this book; but the reviewer cannot think of anybody who will enjoy it, or at any rate appreciate it, more.

Educating Gifted Children. By ROBERT F. DEHAAN and ROBERT J. HAVIGHURST. ix and 276 pages. Cloth. University of Chicago Press. Chicago. 1957. Price $5.00.

In *Educating Gifted Children,* an authoritative review of methods and programs is presented with insight and perspective. Among the topics discussed, are the administrative aspects of educational programs for gifted children, motivation of such children, and community factors and resources in the education of the gifted.

Educating Gifted Children was written to serve as a guide to groups and individuals in the educational profession and community agencies. The philosophical and theoretical purposes and aims of education for the gifted are spelled out in detail. Practical programs are given for parents, community workers, school psychologists, administrators, and teachers. *Educating Gifted Children* can be recommended unqualifiedly as a comprehensive and up-to-date analysis of one of the most pressing problems of modern education.

Medicine in a Changing Society. IAGO GALDSTON, editor. 166 pages. Cloth. International Universities Press. New York. 1957. Price $3.00.

This small volume contains a series of lectures to the layman, sponsored by the New York Academy of Medicine. The relation of society to mental and physical health is the principal theme. Of particular interest is Franz Alexander's brief, well-written summary of the conflicts of western man in obtaining security, yet striving for freedom, new experience and self-development. Horsley Gantt describes the contributions of laboratory study of behavior to our understanding of the social determinants of human behavior. Other lectures describe the relations of organic variables and family dynamics to personality, and the reflection in medical science of developments in nuclear physics.

New Frontiers in Child Guidance. AARON H. ESMAN, M.D., editor. 211 and xi pages with index. Cloth. International Universities Press. New York. 1958. Price $4.00.

Many of the papers in this book describe new and experimental procedures, covering the entire period and diagnostic spectrum of childhood and adolescence. Both residential and out-patient care are discussed. The book reflects the broad sweep of an outstanding psychoanalytically oriented child guidance clinic.

The Troubled Child. By HELEN MOAK. 166 and xii pages. Cloth. Holt. New York. 1958. Price $3.50.

Writing out of her own experience as a mother who has cared for an emotionally disturbed child, the author attempts to illustrate, with case histories, the behavior patterns of troubled children. She writes with hope and sincerity in an effort to help all parents.

Psychosomatic Methods in Painless Childbirth. By L. Chertok. Translated by D. Leigh. xiii, and 258 pages with bibliography and indices. Cloth. Pergamon Press. New York. 1959. Price $6.50.

Dr. Chertok describes the various "non-pharmacological" methods of producing analgesia in childbirth, and discusses their theoretical bases. He takes up Read's method and the Russian method known as psychoprophylactic preparation of women for childbirth, and the application of these methods in France and throughout the world. He endeavors consistently to help the reader "to maintain an awareness of the distinction between the empirical value of a given method and its not necessarily valid theoretical rationale." His study disposes of certain errors which are prejudicial to the psychosomatic method of painless childbirth.

Notes From The Warsaw Ghetto. By Emanuel Ringelbaum. Jacob Sloan, editor and translator. 344 pages. Cloth. McGraw-Hill. New York. 1957. Price $5.95.

This is the heart-breaking story of the Warsaw ghetto under the Nazis; and the heroic resistance is described by an eye-witness. The book should be read by everyone too eager "to forget."

The Chronically Ill. By Joseph Fox. 202 pages. Cloth. Philosophical Library. New York. 1957. Price $3.95.

This sociological and statistical study is a plea for more facilities and understanding for the chronically ill. Psychological factors are missing.

My Inward Journey. By Lorraine Picker. 187 pages. Cloth. Westminster Press. Philadelphia. 1957. Price $3.00.

An enthusiastic report of an analysis of an asthmatic woman is written by the ex-patient. Although the interpretations reported are on the superficial level, and many things unsaid can be read between the lines, the result was favorable.

Thank You, Dr. Lamaze. By Marjorie Karmel. 188 pages. Cloth. Lippincott. New York. 1959. Price $2.95.

An intelligent woman, who observes keenly and expresses herself well, writes of her experiences through two pregnancies and deliveries with a "natural childbirth" method that has gained some acceptance in Europe. The author describes the basic principles in combating and eliminating pain by conscious education of the mother, and by building up consciously developed conditioned reflexes.

The contents are clear and understandable for everyone interested in the process of painless childbirth.

Heart Attack. New Hope, New Knowledge, New Life. By MYRON PRINZMETAL, M.D., and WILLIAM WINTER. 232 pages. Cloth. Simon and Schuster. New York. 1958. Price $3.50.

Published for those who have suffered a coronary thrombosis and for those who have not but wish to avoid it, this book is written by a well-known cardiologist and by a patient who has suffered a heart attack. In layman's language it describes the anatomy of the heart and the symptoms which appear when a person has a coronary attack. It lays great stress upon the presence of excessive cholesterol in the body and the need to "... remember that a lower calorie intake and a lower body weight may prove to be more important to your continued health and happiness than any other factor."

The authors believe that a reasonable amount of daily exercise is desirable; that, "As daily physical activity increases, the incidence of coronary disease decreases" and that there is no contraindication for normal sexual relations. They do warn against excessive smoking and warn that continuing tensions and anxieties can contribute to a heart attack.

The last 78 pages of the book are appendices that really become a diet and cook book. It would seem that this is the kind of book which both average doctor and heart specialist might keep lying around in the waiting room.

Peanuts Revisited. By CHARLES M. SCHULZ. Unpaged. Cloth. Rinehart. New York. 1959. Price $2.95.

But *We* Love You, Charlie Brown. By CHARLES M. SCHULZ. Unpaged. Paper. Rinehart. New York. 1959. Price $1.00.

Charlie Brown and his friends reach hard covers in *Peanuts Revisited.* The dust cover notes that over a million people in the United States have bought *Peanuts* paperback books and that the *Peanuts* cartoon strip is published in six languages in 32 countries.

Peanuts Revisited is a collection of old favorites and comparatively new strips. Charlie loses a library book; he has a baby sister and passes out chocolate cigars; Snoopy thinks he is a python, then a penguin. Linus drags his blanket, and loses himself in the centerfield weeds. He reports, on meeting a new little girl, that he was so self-conscious he didn't know what to do: "so I hit her."

But We *Love You, Charlie Brown* is one of the familiar paperback compilations of the *Peanuts* cartoons; the reviewer believes it is the seventh. It includes Snoopy's famous efforts to become a vulture, many of Schroeder's musical attempts, and considerable misadventuring by Charlie Brown himself from pen-pal letters to kite-flying.

Peanuts, as the well-informed will know, is the mad (in all senses) adult world in microcosm. These two latest glimpses should be enjoyed by anybody with insight into and sympathy for human frailty.

The Psychiatric Nurse in the General Hospital. By MARY A. TUDBURY, R.N., A.B., M.S. XIV and 83 pages. Cloth. Thomas. Springfield, Ill. 1959. Price $3.50.

The title of this book is misleading. Rather than being a study of the role of the nurse in psychiatric units of general hospitals, it is a study and survey of the role and interpersonal relations carried on by psychiatric nurses generally. This reviewer finds the words in the title, "in the General Hospital," superfluous—their justification being that the study took place in a 20-bed unit in a general hospital.

The method of presenting the material is conversational—situations are presented and then discussed. This allows easy reading, and, in a book this short, impairs the value of the book as a reference source only slightly.

The suggestions and observations of the author are valuable. The appended listing of proper and faulty techniques makes the book valuable in schools of nursing, both for reference and as a basis of discussion. This reviewer found the term "psychiatric nurse expert," which was used frequently, somewhat disturbing, as it seemed to imply a degree of omnipotence, but this is a minor point.

Battle. The Story of the Bulge. By JOHN TOLAND. 400 pages including index. Cloth. Random House. New York. 1959. Price $5.00.

Aside from notation of individual reactions under stress, of which this book is full, the principal psychological interest in the famous Battle of the Bulge is in why the allied command was caught flat-footed. There has been much said and written in aspersion of American (or allied) intelligence. Toland points out that if American amateurish (?) intelligence failed, British intelligence—which was not amateurish—failed also. He thinks there was ample evidence that a huge German offensive was about to be launched but that allied commanders who did not wish to believe it simply ignored it. For this, there were, of course, unconscious reasons which the author does not discuss. The information for such a discussion is probably lacking, but, considering the enormous stake in this battle, a study would be of great interest and importance.

The Psychiatric Aide. 2nd edition. By ALICE M. ROBINSON, R.N., M.S. XIV and 200 pages. Cloth. Lippincott. Philadelphia. 1959. Price $3.50.

This is the second edition of this book, and the changes incorporated are relatively slight. Material has been added on the newer concepts of psychiatry including the "tranquilizers." This book is a valuable tool in the instruction of psychiatric aides. The material is well presented and suited for the level of accomplishment expected.

For Husbands and Wives. A Plan For Happy Marriages and Family Living. By PAUL H. LANDIS. 260 pages. Cloth. Appleton-Century-Crofts. New York. 1956. Price $3.95.

Every year, scores of worthless books are written professing to give advice on marriage. After this Niagara of words, juvenile trash, and misinformation it is a pleasure to read Dr. Landis' book. In non-technical language he optimistically, and yet realistically, approaches this most important relationship between any two persons in terms of our modern age. He sees the three most important pitfalls to be faced as religion, money, and sex. These and other problems are treated realistically, with humaneness and understanding, and with their proper emphasis.

This is a book to be recommended to those who are already married as well as to those who contemplate marriage. It could also be profitably studied by physicians, clergymen, psychologists, and all others who in some measure give counsel to our married population. It should be observed that however well-adapted for mental hygiene purposes, almost any work on this subject can be criticized from the dynamic point of view as oversimplified, superficial and overoptimistic. Justifiable as such comment generally is, this reviewer thinks it should not be construed as devaluating a practical and useful work which should contribute to the better adjustment of many married couples.

Balcony in the Forest. By JULIEN GRACQ. 213 pages. Cloth. Braziller. New York. 1959. Price $3.75.

The language lacks a word condensing the thought: "a good literary topic butchered by inadequate writing and psychological ignorance." Were such a term available, it could be applied to Mr. Gracq's novel, which describes the feelings of a young officer stationed in a blockhouse at the Belgian border during the phase of the "phony" war, at the beginning of World War II. The man has an affair with a girl that is totally incomprehensible.

Blind Man's Mark. By BRUCE PALMER. 179 pages. Cloth. Simon and Schuster. New York. 1959. Price $3.50.

A young writer attempts an ambitious plan in his first novel: to describe the love affair of an unsophisticated young man for a "not nice" girl; the story ends in murder. The subject requires understanding of the psychology of masochistic passivity and of criminosis; the author lacks it.

Surgeon At Arms. By DANIEL PAUL with JOHN ST. JOHN. 227 pages. Cloth. Norton. New York. 1959. Price $3.95.

This book is an interesting description of the escape of a British surgeon from the Arnhem "parachute-pocket" in September 1944. The Dutch underground helped, and the author describes a few types of its heroes very well.

I Was a Teen-Age Dwarf. By MAX SHULMAN. 204 pages. Cloth. Bernard Geis Associates. New York. 1959. Price $3.50.

A book of humor about that "baffling breed called adolescents." The author also contributes the text to the television series, *The Many Loves of Dobie Gillis*. The level is substandard.

Family Planning, Sterility and Population Growth. By R. FREEDMAN, P. WHELPTON and A. CAMPBELL. 495 pages. Cloth. McGraw-Hill. New York. 1958. Price $9.50.

A team consisting of a sociologist and two specialists in research in population problems, interviewed 2,700 married women and came to these conclusions:

"1. Fecundity impairments are very widespread in the American population, but they are not very important in determining the course of population trends;

"2. Family limitation is now almost universally approved and is practiced widely and effectively by the white couples who need it;

"3. All classes of American population are coming to share a common set of values about family size;

"4. The concensus on the two-to-four-child family may be an important indication of a more familistic orientation in American life;

"5. If present family growth plans are continued and realized, the American population will grow rapidly, although there may be important troughs and crests in the growth curve."

It is regrettable that a psychiatrist was not included in the research team; some facts could have been better evaluated, and the amount of uncertainty in the study diminished.

The Godstone and the Blackymor. By T. H. WHITE. 225 pages. Cloth. Putnam's. New York. 1959. Price $3.95.

The author has written of his new book, "God knows what this book is about." The reviewer feels that the subject matter need be of little concern to the reader, for whatever Mr. White chooses to write about, his lively mind and charming style make it a thing of pure delight.

This one happens to be a rambling narrative of the author's trip through western Ireland, where he hunts, fishes and learns the art of falconry, and where he meets with some unforgettable characters. One of the most fascinating of these is Mr. James Montgomery-Majoribanks, the "Blackymor" from Africa, seller of patent medicines.

Of special interest psychologically should be the chapters in which Mr. White attempts to prove the Godstone a phallic symbol.

Altogether the book is a happy thing to come upon in this unhappy world, and one hopes there will be more from a man who is certainly one of our greatest living writers.

CONTRIBUTORS TO THIS ISSUE

ROBERT EDWALDS, M.D. Dr. Edwalds, born in Chicago in 1925, attended the University of Chicago, where he received a Ph.B. degree in 1947, a B.S. in child psychology and education in 1949, and his M.D. in 1953. From 1943 to 1945, he was a medical aid man in the army, where he received the Purple Heart with Oak Leaf Cluster.

Dr. Edwalds interned at Grand Rapids, Mich., and had a three-year psychiatric residency at Northville (Mich.) State Hospital from 1954 to 1957. He is now on the staff of Galesburg (Ill.) State Research Hospital, where he was formerly chief of the intensive treatment service and is now director of the out-patient clinic and co-ordinator of residency training. He is a clinical instructor in psychiatry at the University of Illinois. He is a diplomate of the American Board of Psychiatry and Neurology and is a member of numerous professional societies. Dr. Edwalds is married and has five children.

KONSTANTIN D. DIMITRI, M.D. Dr. Dimitri was born in Lapovo, Yugoslavia in 1914; and he received his medical degree from the University of Belgrade in 1939. He interned at a Yugoslav army hospital and at the university clinic in Belgrade in gynecology and obstetrics. After coming to this country, he interned again in 1950 and 1951 at Edgewater Hospital, Chicago. He served a psychiatric residency in the Illinois State Psychopathic Institute Program at Galesburg State Research Hospital and Chicago State Hospital. He is now chief of the adolescent service at Galesburg State Research Hospital. Dr. Dimitri is married. He is a member of the American Psychiatric Association and of other professional societies.

H. AZIMA, M.D. Dr. Azima is assistant professor at McGill University, is assistant in psychiatry at the Royal Victoria Hospital, Montreal, and is also in psychoanalytic training. Born in Teheran, Iran, in 1922, he is a graduate in medicine of the University of Kansas in 1948. He interned in New Jersey and in New York City and studied analytic psychopathology at the New School, New York City, during his internship. He served as assistant in psychiatry, then as assistant in neurology at the Bronx Hospital, New York City. He had a residency at Ste. Anne Hospital and the Salpêtrière from 1950 to 1953, and was assistant in psychiatry at the University of Paris, where he obtained a diploma in psychiatry in 1953. He received a diploma in psychiatry and the degree of M. Sc. in psychiatry from McGill in 1955.

He was on the staff of the Allan Memorial Institute, Montreal, as senior assistant resident in 1953 and 1954 when he became an assistant in research and a clinical fellow there. He became a clinical assistant at Royal Victoria Hospital in 1955, and assistant in psychiatry there in 1956. He lectured in psychiatry at McGill, then was named assistant professor in 1958. Dr. Azima is a member of the American Psychiatric Association, the Canadian Psychiatric Association, and other medical societies. His scientific papers have been published both in English and in French.

FERN J. CRAMER AZIMA, M.A. Fern Azima received her B.A. degree at Queens University, Kingston, Ontario in 1948, and her M.A. at Cornell in 1949. She has done postgraduate studies at the University of Montreal, and her Ph.D. thesis is to be submitted there. Since 1949, she has been connected with Allan Memorial Institute and the Department of Psychiatry, McGill University. She has been senior psychologist and demonstrator at the institute, and demonstrator and research associate in the Department of Psychiatry, and is now lecturer and research psychologist in the Department of Geriatrics there.

R. DE VERTEUIL, M.D. Dr. de Verteuil received his medical degree from McGill University in 1948. He interned at Queen Mary Hospital, Montreal, and served a residency in psychiatry at Ste. Anne Hospital, Trinidad. He has been a senior psychiatrist at Verdun Protestant Hospital, Montreal, since 1953.

LUDWIG EIDELBERG, M.D. Dr. Eidelberg is in private psychoanalytic practice in New York City and is, at present, president of the New York Psychoanalytic Society. Born in 1898, he was graduated in medicine from the University of Vienna in 1925. He is clinical associate professor of psychiatry at the State University of New York downstate medical center and is also on the faculty of the New York Psychoanalytic Institute.

ALBERT A. KURLAND, M.D. Dr. Kurland is director of medical research at Spring Grove State Hospital, Baltimore, Md. He is a graduate of the University of Maryland and received his M.D. there in 1940. He served with the armed forces from 1941 to 1946, was a psychiatrist in the mental hygiene clinic of the Baltimore office of the Veterans Administration from 1947 to 1949, and went to Spring Grove State Hospital as staff psychiatrist in 1949. He became director of medical research in 1953. Dr.

Kurland has been psychiatric consultant at Fort George C. Meade (Maryland) Station Hospital and at the Aberdeen Proving Grounds (Maryland) Station Hospital. He is certified in psychiatry by the American Board of Psychiatry and Neurology.

T. GLYNE WILLIAMS, M.D. Dr. Williams was graduated from the University of the South, Sewanee, Tenn. in 1939; and he received his M.D. degree from Vanderbilt University in 1943. He interned at Baroness Erlanger Hospital at Chattanooga, then was neuropsychiatrist in the navy from 1944 to 1946. He was a psychiatrist with the Veterans Administration from 1946 to 1950 when he became a senior physician at Spring Grove State Hospital. He was appointed clinical director in 1953, a position he held until 1956. He has been professor of psychiatry at Yale since 1956.

THOMAS E. HANLON, Ph.D. Dr. Hanlon is chief research psychologist at Spring Grove State Hospital, Baltimore, Maryland. He received his B.A. degree in psychology from Catholic University in 1951, his M.A. in counseling in 1953, and his Ph.D. in guidance in 1958. He was counseling psychologist at Georgetown University in 1953 and 1954, then was research associate with Psychological Research Associates, Washington, in 1954 and 1955 before going to Spring Grove State Hospital as a research psychologist in 1955. He was promoted to chief research psychologist in 1958.

A. J. FERREIRA, M.D. Dr. Ferreira was born in 1923 in Lisbon, Portugal where he received his general education and where he was graduated from medical school in 1946. He was in general practice in Lisbon for a year, then came to this country for a general rotating internship at St. Elizabeth's Hospital, Elizabeth, New Jersey. Following a general residency, he had a psychiatric residency at New Jersey State Hospital, Trenton, from 1950 to 1952. The following year he was a staff psychiatrist at Rusk and Austin state hospitals, Texas, and in 1953 and 1954 he served another residency at the Veterans Administration Hospital, Palo Alto, California. He was staff psychiatrist at Agnews State Hospital, Agnew, California, in 1954 and 1955. He was director of an adult and child guidance clinic at San Jose and is in private psychiatric practice there. Dr. Ferreira was commissioned as a major in the medical corps of the United States army in November 1956 and served as chief of the neuropsychiatric service and chief of the mental hygiene consultation clinic at the United States Army Hospital, Fort Chaffee, Arkansas. Dr. Ferreira is a diplomate in psychiatry of the American Board of Psychiatry and Neurology. Previous scientific publications have appeared in Portuguese.

HAROLD SCHILLER, M.D. Born in New York City in 1906, Harold Schiller was graduated from the College of the City of New York and received his medical degree, after interning at the San Francisco County Hospital, from the University of California Medical School in 1932. He then went to Palestine where he was in private practice for some years, returning to New York in 1941. He obtained his license to practise in New York State in 1944 and started service with the Department of Mental Hygiene in December 1944 at Wassaic State School. He was a supervising psychiatrist at the time of his transfer in April 1951 to Willowbrook State School, where he is in charge of the female service.

Dr. Schiller is married and has a son and daughter. He is active with the Boy Scouts of America. He enjoys bowling, tennis and fishing, and playing the English recorder.

J. B. CHASSAN, Ph.D. Dr. Chassan's doctorate is in mathematical statistics and he has been working in medical and clinical statistics for the last 12 years. He is chief statistician of Saint Elizabeths Hospital, Washington, D.C., is consultant to the Clinical Neuropharmacological Research Center of the National Institute for Mental Health at Saint Elizabeths, and is a faculty member of the United States Department of Agriculture Graduate School, division of mathematics and statistics. He has also been a consultant to the American Psychoanalytic Association and to the Psychotherapy Research Project of George Washington University; and he is a member of the advisory board of *Psychiatry*. His publications have appeared in the *American Mathematical Monthly, Biometrics, Human Biology, Population Studies,* and *Psychiatry*.

MARGOT CUTNER, Ph.D. Dr. Cutner is in practice in England as a psychotherapist of the Jungian school. She received her doctorate in philosophy from Hamburg and trained in Berlin in psychotherapy in the schools of Künkel and Jung. She went to England in 1939 and entered private practice as an analytical psychologist, also doing work as a volunteer at Shalee-on-Trent Child Guidance Centre and at Winsor Green (Mental) Hospital, Birmingham. She later was appointed analyst at Powick (Mental) Hospital, near Worcester, eventually working there on a full-time basis.

Dr. Cutner is now engaged in private studies. She has previously published papers in the *British Journal of Medical Psychology*, the *Bulletin of the Association of Psychotherapists*, and *Psychotherapy*. She is a member of the Society of Analytical Psychology; the British Psychological Society, Medical Section; the Association of Psychotherapists; and the International Association of Women Psychologists.

NEWS AND COMMENT

NEW YORK STATE APPOINTMENTS ARE ANNOUNCED

A number of important appointments and changes in organization in the New York State Department of Mental Hygiene have been announced by Commissioner Paul H. Hoch, M.D. L. Laramour Bryan, M.D., deputy assistant commissioner, has been promoted to assistant commissioner and is in charge of the department's division of in-patient services. Martin Lazar, M.D., has been appointed director of the Utica State Hospital to succeed Bascom B. Young, M.D., who retired on October 1; Dr. Lazar was formerly administrative assistant director of Willowbrook State School. More extended biographical notes on Dr. Bryan and Dr. Lazar will appear, as is customary, in THE PSYCHIATRIC QUARTERLY SUPPLEMENT.

A new office of mental retardation has been opened by the department to co-ordinate and develop services for the mentally retarded. Arthur W. Pense, M.D., deputy commissioner, is director of the new service. Joseph L. Camp, M.D., who was assistant director at Letchworth Village, was named deputy assistant commissioner and assigned to assist Dr. Pense in the new office, in addition to other duties.

Mrs. Viola McGrath, assistant director of occupational therapy services for the department, has been named director to succeed Miss Virginia Scullin, who died on October 9, 1959 after a long illness. Mrs. McGrath has been engaged in occupational therapy work for the department since 1933.

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GREGORY ZILBOORG, M.D., DIES AT 68

Gregory Zilboorg, M.D., internationally known psychoanalyst, lecturer and author, died of cancer in New York City on September 17, 1959 at the age of 68. He had been in the practice of psychoanalysis and psychiatry in New York for 28 years.

Born in Kiev, Russia, Dr. Zilboorg received his doctor's degree in medicine from the Psychoneurological Institute in St. Petersburg (Leningrad) in 1917. He had served in the medical corps of the Russian army and was in the first Russian revolution of March 1917, becoming secretary to the ministry of labor in the Lvov and Kerensky governments. Forced out by the Bolshevik seizure of power, he edited a daily paper in Kiev until 1918, when the German occupation forced him to leave Russia. Reaching the United States in 1919, he supported himself by work in journalism and in translating, while studying for a second doctor's degree at the College of Physicians and Surgeons, Columbia University. Among his translations was Leonid Andreyev's *He Who Gets Slapped*, which was notably successful on the New York stage.

Dr. Zilboorg received his second M.D. in 1926 from Columbia, and served for the next five years on the staff of Bloomingdale's (New York Hospital —Westchester Division), also acting for a time as an assistant at the Psychoanalytic Institute in Berlin. He had been in private practice since 1931. Dr. Zilboorg taught psychiatry at New York University, Fordham University and the New York Medical College and was associated with a number of other educational institutions.

Author of more than 200 scientific articles and books, Dr. Zilboorg was particularly interested in the history of medical psychology and was working on a source book on that subject at the time of his death. His *History of Medical Psychology* is a standard work in the field; and he was associate editor of the important *One Hundred Years of American Psychiatry*. Some of his recent writings were concerned with the relationship of psychiatry and religion; in *Freud and Religion* he wrote from the viewpoint of a convert to Roman Catholicism that Freud's psychopathology could be used "without bowing to Freud's militant atheism." Dr. Zilboorg's survivors include his second wife, Mrs. Margaret Stone Zilboorg, three sons and two daughters.

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HOCH TO DO SURVEY FOR COLORADO

Commissioner Paul H. Hoch, M.D., of the New York State Department of Mental Hygiene will make a survey in January 1960 of the psychiatric facilities of the state of Colorado. At the invitation of the Colorado governor, he is to study that state's present program and make recommendations for development and reorganization. Colorado now has one 6,000-bed mental hospital, and Dr. Hoch is to aid the state's authorities in setting up a long-range program and planning priorities for expenditures.

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FLANDERS DUNBAR, M.D. PSYCHOSOMATIC PIONEER, DIES

Flanders Dunbar, M.D., pioneer worker and widely-known authority in the field of psychosomatic medicine, was found, by her 18-year-old daughter, drowned in the basement swimming pool of her home in South Kent, Conn., on August 21, 1959. She had been accustomed to swimming there every evening before dinner, and Connecticut state police found the death to be accidental.

Helen Flanders Dunbar, a graduate of Bryn Mawr in 1923, had M.A. and Ph.D. degrees from Columbia and a B.S. from Union Theological Seminary before she received her medical degree at Yale in 1930; she received a Med.Sc.D. degree from Columbia in 1935. She practised as Dr. Flanders Dunbar and retained her own name by law when she was married to the economist and editor, George Henry Soule. Dr. Dunbar studied, held staff positions or did research in Vienna, at Burghölzli in Zurich, in

Amsterdam, and in numerous hospitals and institutions in this country, including the New York State Psychiatric Institute.

Flanders Dunbar was a diplomate in psychiatry of the American Board of Psychiatry and Neurology. She was a fellow of the New York Academy of Medicine, the American Psychiatric Association, the American Geriatrics Society, the International Association on Gerontology and the New York Academy of Science; she was a member of the American Psychoanalytic Association, the American Orthopsychiatric Association, the Association for Research in Nervous and Mental Diseases, and numerous other local, national and international scientific organizations.

She inaugurated the journal, *Psychosomatic Medicine*, and was its editor-in-chief from 1938 to 1947 when she became editor emeritus. She was the author of numerous scientific articles and books, mostly in the field of psychosomatic medicine. Her book, *Psychosomatic Medicine*, published in 1944, became a standard in the field and was revised and reissued in 1955. She was formerly collaborating editor, then editor, of the *Psychoanalytic Quarterly*. Besides her original writings, she was translator of Eugen Kahn's *Psychopathic Personalities*.

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FILM MADE ON PHARMACOLOGIC STUDY OF MIND

A film on *A Pharmacological Approach to the Study of Mind* has been made to present the highlights of a three-day symposium on the subject in January 1959 in San Francisco. (The papers of this same symposium have been published in a book with the same title as the film; and it will be reviewed in this QUARTERLY.) The film is available to professional groups on request to the Medical Education Department, Lakeside Laboratories, Inc., Milwaukee 1, Wis. The narrator in the film is Ralph W. Gerard, M.D., Ph.D., director of laboratories, Mental Health Research Institute, University of Michigan.

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BELA MITTELMANN, M.D. PSYCHOANALYST, DIES AT 60

Bela Mittlemann, M.D., New York psychoanalyst and a research worker in the psychosomatic and child development fields, died of a heart attack at his home in New York City on October 4, 1959. Born in Budapest in 1899, he was a graduate in medicine of the German University of Prague in 1922. He had been in the United States since 1932. Dr. Mittlemann was a diplomate in psychiatry of the American Board of Psychiatry and Neurology; he was a member of the American Psychiatric Association, the American Psychoanalytic Association, the Association for Research in Nervous and Mental Diseases and other professional organizations. He was the author of numerous scientific papers and a widely-used text, *Principles of Abnormal Psychology*.

CAMERON HONORED BY BRITISH ASSOCIATION

D. Ewen Cameron, M.D. chairman of the department of psychiatry, McGill University, was made an honorary member of the Royal Medico-Psychological Association of the United Kingdom, at its annual meeting in Glasgow in July. Other honorary members of recent years include Sir W. Russell Brain, Sir David K. Henderson and Professor Carl G. Jung.

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ABRAHAM FLEXNER DIES, AGED 92

Abraham Flexner, educator and organizer whose almost single-handed efforts led to sweeping reforms in American medical education nearly 50 years ago, died at his home in Falls Church, Va., on September 31, 1959 at the age of 92. A commanding figure in the education field, he was a graduate of the Johns Hopkins University, held a master's degree from Harvard and was the recipent of honorary doctorates from numerous institutions in this country and Europe, including two honorary M.D.'s (granted by the universities of Berlin and Brussels) in recognition of his services to medicine.

Abraham Flexner's outstanding service to medicine came in 1910, with publication of his report, compiled for the Carnegie Foundation for the Advancement of Learning, on the medical schools of the country. He found only 31 of more than 150 to have acceptable standards, and the report resulted in the closing of numerous substandard schools and the reformation of others. Seven years later, he drafted a plan for model medical training centers which he persuaded the Rockefeller family to finance to amounts estimated at $50,000,000. Perhaps his most notable public service was in the field of more general higher education, in organizing and collecting the funds for the establishment of the Institute for Advanced Study, of which he was the first director, and for which he persuaded Albert Einstein to come to America in 1933. Dr. Flexner retired in 1939 but continued to study and write during his retirement, his writing including his autobiography, *I Remember*.

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APPOINTMENTS MADE IN GENERAL PSYCHIATRIC FIELD

Among a number of developments of interest in the psychiatric and mental health field, is the naming of William Malamud, M.D., president of the American Psychiatric Association, as professional and research director of the National Association for Mental Health, a position in which he will supervise care, treatment and prevention activities in addition to the more usual research problems. His appointment was announced by Lawrence J. Linck, himself just appointed executive director of the mental health association. Mr. Linck, a management counselor, was formerly executive director of the National Society for Crippled Children and Adults.

An important state appointment is that of Irville H. MacKinnon, M.D., assistant director of the New York State Psychiatric Institute and for more than 30 years connected with the Columbia University-Presbyterian Hospital medical center, as superintendent of Milledgeville State Hospital, Georgia, where he will not only administer that institution but will direct the mental health services of the whole state. He has resigned his position as professor of psychiatry in the College of Physicians and Surgeons at Columbia to become professor of psychiatry at Emory University, Atlanta.

McGill University announces two appointments as assistant professors in the department of psychiatry: Drs. Henri Ellenberger and H. B. Murphy, both of whom will assist Dr. E. D. Wittkower in the Section of Trans-Cultural Psychiatric Studies. Both have written extensively on the subject; and Dr. Ellenberger was co-editor of the book, *Existence*.

Montefiore Hospital, New York City, has announced the appointment as chief of its newly established division of psychiatry of Dr. Seymour Perlin, fellow at the Center for Advanced Studies in the Behavioral Studies at Stanford, Calif., and formerly chief of the section of psychiatry, Laboratory of Clinical Science, National Institute of Mental Health.

The tenth and eleventh Alfred P. Sloan visiting professors in the Menninger School of Psychiatry, Topeka, Kas., have been announced as Dr. Kenneth Alexander Hamilton of Edmonton, Alberta, and Dr. P. C. Kuiper of Groningen, the Netherlands. Dr. Hamilton is chief of medicine at Colonel Newburn Pavilion at the University of Alberta Hospital and professor of medicine at the university; Dr. Kuiper is a psychoanalyst and is deputy chief of the University of Groningen Psychiatric Hospital and lecturer in clinical psychiatry and depth psychology.

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MENTAL PATIENTS OVER 65 NOW 30 PER CENT OF TOTAL

Patients over 65 years of age now make up 30 per cent of the country's total mental hospital population, according to a study prepared for the American Psychiatric Association and presented at the association's annual Mental Hospital Institute in Buffalo, October 19 to 22, 1959. The study also found that patients who had grown old in mental hospitals outnumbered those admitted at advanced ages, in spite of increases in the numbers of the latter. Leo H. Bartemeier, M. D., keynote speaker of the conference, presented the view that many admissions of the aged were of patients who did not require institutionalization because of their mental conditions but were admitted because of family situations. Other speakers expressed general disagreement with this view, but there was also general agreement that many old people in mental hospitals could well be cared for elsewhere if facilities were available.

VIRGINIA SCULLIN, STATE O.T. DIRECTOR, DIES

Virginia Scullin, director of occupational therapy for the New York State Department of Mental Hygiene, died at Pilgrim State Hospital on October 9 after a long illness. Miss Scullin came to the department 35 years ago as chief occupational therapist at Central Islip State Hospital; she organized the occupational therapy department at Pilgrim State Hospital in 1933; and she became state director in 1946. Miss Scullin was a graduate of the Philadelphia School of Industrial Arts and had also studied at the Philadelphia School of Occupational Therapy and at New York University.

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DR. YOUNG RETIRES AS DIRECTOR AT UTICA

Bascon B. Young, M.D., director for the past eight years of Utica (N.Y.) State Hospital, retired on October 1 after nearly 30 years in the state service. A graduate of the University of Virginia Medical School, he had entered New York state service at Harlem Valley State Hospital in 1930; 20 years of his service were spent at that institution. Dr. Young retired to head a mental health clinic in Charleston, W. Va.

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A. WARREN STEARNS, M.D., FORMER TUFTS DEAN, DIES

A. Warren Stearns, M.D., former Massachusetts commissioner of correction, and former dean of Tufts University Medical School, died at his home in Billerica, Mass., on September 23, 1959. In the practice of psychiatry for nearly 50 years, he was widely known as an authority on criminal behavior. Besides his service as commissioner of correction, he had served Massachusetts at Danvers State Hospital, Boston Psychiatric Hospital, the state board of insanity, the Massachusetts State Prison and Bridgewater State Hospital. Born in 1885, he was graduated from Tufts medical school in 1910. He was dean from 1927 to 1945. He served in the armed services in both world wars, retiring as a captain in the naval reserve.

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VINELAND TRAINING SCHOOL LISTS REPRINTS

The Training School at Vineland, N. J., has issued a five-page mimeographed list of currently-available reprints. More than 160 titles are available, some however, said to be in short supply.

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MEETINGS AND LECTURES ARE ANNOUNCED

The 1960 meeting of the World Federation for Mental Health will be conducted in Edinburgh August 7 to 12. The Second International Con-

ference on Mental Deficiency (the first was in 1948) will be held in London, July 24 to 29, arranged by co-operation of the American Association on Mental Deficiency and three British professional associations. The largest American meeting of the year in the psychiatric field will be that of the American Psychiatric Association, May 9 to 13, in Atlantic City.

The Eastern Group Psychotherapy Society is conducting a series of four meetings on personality changes effected through group psychotherapy; Rutherford B. Stevens, M.D., and Isadore Cohn, M.D., are the speakers for the meetings of October 16 and November 20. The Chicago Ontoanalytic Society is conducting a conference on existential psychotherapy on December 13, with Jordan M. Scher, M.D., and Erwin Straus, M.D., chairmen.

The November 19 to 21 annual meeting of the National Association for Mental Health in Philadelphia is in honor of the fiftieth anniversary of the mental health movement in the United States, and will also mark the retirement of George S. Stevenson, M.D. as the association's national and international consultant.

The annual meeting of the Association for the Psychiatric Treatment of Offenders is called for January 14, 1960 at the New York Academy of Sciences. The American Psychopathological Association is holding a symposium on the "Psychopathology of Aging" at its fiftieth annual meeting in New York City, February 19 and 20; and the symposium will be published during the year.

The thirty-seventh annual meeting of the American Orthopsychiatric Association is scheduled for Chicago on February 25 to 27. The program is to include joint sessions with the American Public Health Association, the World Federation of Mental Health, the American Group Therapy Association, the Society for Projective Techniques, the American College Health Association, and the American Association of Psychiatric Clinics for Children. The North Shore Hospital's tenth annual lecture series at Winnetka, Ill., is being given this year on the subject of office management of emotional disorders, with the individual lectures on the first Wednesday of each month. Lecturers for February, March and April are Benjamin Boshes, M.D., Jules H. Masserman, M.D., and H. H. Garner, M.D.

The annual meeting of the American Society of Psychosomatic Dentistry and Medicine will be in Washington, D.C. from March 11 to 13. The American Psychosomatic Society will meet in Montreal, March 26 and 27.

The eighth annual Karen Horney Lecture will be given by David McK. Rioch, M.D., at the New York Academy of Medicine on March 23. Dr. Rioch will speak on "Recent Contributions of Neuropsychiatric Research

to the Theory and Practice of Psychotherapy." The lecture is under the auspices of the Association for the Advancement of Psychoanalysis.

The Academy of Psychoanalysis will hold its annual meeting at Atlantic City in May, with its scientific sessions scheduled for May 7 and 8. The first day's theme will be "The Nature of the Scientific Process." Papers on a variety of other subjects will be given the second day.

An institute on psychotherapy (the tenth of its series) will be conducted in Lindau, Germany from May 2 to 7. The subject will be group psychotherapy; there will be an exhibition of art work originating during psychotherapeutic treatment, guided tours, lectures and seminars. This will be followed from May 9 to 16 by a week of practical exercises and group psychotherapy. The proceedings will be conducted in German.

An unusual anniversary, the centenary of The National Hospital, Queen Square, London, will be observed from June 20 to 25. The hospital is sending personal invitations to every former student and house officer and an "*ad hoc* notice" to all official neurological and neurosurgical societies.

The International Society for General Semantics and the Institute of General Semantics will meet at the University of Hawaii, Honolulu, July 31 to August 4, 1960.

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